

The University of Chicago

A STUDY
OF THE DIRECTIVE FACTORS IN
INDIVIDUAL BEHAVIOR

A PART OF A DISSERTATION SUBMITTED TO
THE FACULTY OF THE DIVISION OF THE
SOCIAL SCIENCES IN CANDIDACY FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATION
1941

By
ASAHEL DAVIS WOODRUFF

Private Edition, Distributed by
THE UNIVERSITY OF CHICAGO LIBRARIES
CHICAGO, ILLINOIS
1941

The University of Chicago

A STUDY
OF THE DIRECTIVE FACTORS IN
INDIVIDUAL BEHAVIOR

A PART OF A DISSERTATION SUBMITTED TO
THE FACULTY OF THE DIVISION OF THE
SOCIAL SCIENCES IN CANDIDACY FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF EDUCATION

1941

By

ASAHEL DAVIS WOODRUFF

Private Edition, Distributed by
THE UNIVERSITY OF CHICAGO LIBRARIES
CHICAGO, ILLINOIS

1941



PREFATORY NOTE

The material presented in this publication is the "essential portion" of a dissertation entitled "A Study of the Directive Factors in Individual Behavior," which in full is to be found only in the University of Chicago Libraries. In the following pages there are gaps in the page and chapter numbers which indicate the amounts of material in the dissertation which were not included in this publication. Chapters I and II of the dissertation have been combined and reduced to a summary. Chapter III which contains the technical contribution of the research is reproduced here in full. Chapters IV and V are omitted in this publication. They contain data and discussions bearing on the validity of the test constructed as part of the research program, but the data shown here in Chapter VII are representative of that part which is omitted. The findings and conclusions are reduced in this publication by the omission of the discussion of implications for educational practice, and for further research.

Those readers who are interested in values from the research point of view can profitably read the complete dissertation, but the portion reproduced here will acquaint the general reader with the principal facts of interest to him.



Digitized by the Internet Archive
in 2026

https://archive.org/details/IA41533924_0064

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
LIST OF ILLUSTRATIONS	iv
Chapter	
I. INTRODUCTION	1
III. THE CONSTRUCTION OF A VALUE TEST	24
The Generalized Technique	24
A Study of Choices	34
Method of Scoring and Interpreting Test	54
Interpreting the Scores	62
Summary	67
VI. VALUE PATTERNS AND ELECTIVE ACTIVITIES	113
Value Patterns Related to Specific Elective Activities of Groups and Sub-Groups	113
Value Differences Related to Social Mobility	119
Summary	121
VII. EVIDENCES OF TEST VALIDITY FROM INTERVIEW AND FROM ANALYSIS OF SCORES	122
Verification of Value Patterns by Interview	122
VIII. FINDINGS AND CONCLUSIONS	155
Foundation of Value Testing	155
The Findings	155
An Interpretation	158
Conclusions	159
BIBLIOGRAPHY	163

LIST OF TABLES

Table	Page
1. Selection of Problems for a Value Test	29
27. Differences in Values of People Active in Church and People Not Active in Church (Age 17 Years)	114
28. Differences in Values of People Active in Church and People Not Active in Church (Age 18 Years)	115
29. Differences in Values of Groups J and A	116
30. Differences in Values of Four Church Attenders and Thirteen Non-Attenders in Group I	117
31. Differences in Values of Groups J and I	118
32. Differences in the Values of Ten Mobile Upward and Ten Non-mobile People	120
33. Value Pattern of Case Number A43	124
34. Value Pattern of Case Number A57	125
35. Value Pattern of Case Number A32	127

LIST OF ILLUSTRATIONS

Plate	Page
I. Sample of Score Sheet for Test	53
II. Score Sheet for Case Number C29	57
III. Score Sheet for Case Number E33	58

CHAPTER I

INTRODUCTION

The inability of personality students to agree on a definition of an attitude seems to be due to the fact that various students have concentrated their attention on different aspects of behavior such as affect, drive, or evaluative judgment, but have not been discriminative in the use of the word "attitude." The writer believes that harmony can be brought into the interpretation of the literature by postulating the existence of a value pattern which directs behavior choices in the individual, and which gives meaning to the affect and other behavioral phenomena which accompany the process of facing and solving a problem or any situation in life.

Some few students have sensed the importance of values in behavior and a little preliminary discussion has appeared in various forms in the literature.¹

¹Floyd H. Allport, "Teleonomic Description in the Study of Personality," Character and Personality, V (1937), 202-214.

Hadley Cantril and Gordon W. Allport, "Recent Applications of the Study of Values," Journal of Abnormal and Social Psychology, XXVIII (1933), 259-273.

Raymond B. Cattell, "Sentiment or Attitude? The Core of a Terminology Problem in Personality Research," Character and Personality, IX (September, 1940), 6-17.

W. H. Cowley, "The Educated-Man Concept in the Twentieth Century," School and Society, LII (October 19, 1940), 345-350.

L. K. Frank, "Projective Methods for the Study of Personality," Journal of Psychology, VIII (October, 1939), 409-413.

Edward M. Glaser and Julius B. Maller, "The Measurement of Interest Values," Character and Personality, IX (September, 1940), 67-81.

Fritz Kunkel, Character Growth Education, pp. 5-6. Chicago: J. B. Lippincott Co., 1938.

Henry A. Murray, et al., Explorations in Personality, pp. 1-130. New York: Oxford University Press, 1938.

R. E. Park, "Human Nature, Attitudes, and the Mores," Social Attitudes, p. 30. Edited by Kimball Young. New York: Henry Holt & Co., 1931.

Daniel A. Prescott, Emotion and the Educative Process, pp. 59 ff. Washington: American Council on Education, 1938.

Louis Rath, "Approaches to the Measurement of Values," Educational Research Bulletin, XIX (May 8, 1940), 275-282.

Attempts to measure or otherwise study values are relatively few. Only one recognized value test¹ has been placed on the market, and it is subject to serious limitations. A few other experimental techniques have been presented in the literature.² No one has yet succeeded in revealing an objective and valid picture of the value pattern of an individual in which his own unique structuring is apparent. The present study is directed toward that very problem.

The central problem of the study is the development of a generalized technique for the construction of a test by means of which a given list of values can be ranked in the order of their importance for an individual without regard to the extent to which the individual is aware of his own evaluation of these items. The test which was constructed to demonstrate and validate the technique, provides ways of checking on the correctness of the rank order shown in three different problems, and on the extent to which the values remain in a constant order for those three problems. This was done as a means of providing some evidence on the hypothesis that values are basic directive factors in behavior, and may be used to account for consistency in behavior. Important as this hypothesis may be, however, it is not basic to the thesis, and is treated incidentally.

James M. Reinhardt, Social Psychology, p. 246. Chicago: J. B. Lippincott Co., 1938.

H. M. Richardson, "Community of Values as a Factor in Friendships of College and Adult Women," Journal of Social Psychology, XI (1940), 303-312.

B. R. Schaeffer, "The Validity and Utility of the Allport-Vernon Study of Values Test," Journal of Abnormal and Social Psychology, XXX (1936), 419-422.

R. S. Woodworth, Psychology, pp. 103-104. New York: Henry Holt & Co., 1934.

¹Gordon W. Allport and Philip E. Vernon, A Study of Values (test). Boston: Houghton Mifflin Co., 1931.

²L. W. Ferguson, "Primary Social Attitudes," Journal of Psychology, VIII (1939), 217-223.

George W. Jacobs, "Investigating the Student's System of Values," California Journal of Secondary Education, XIV (October, 1939), 339-341.

A. C. Van Dusen, Stan Wimberly, and C. I. Mosier, "Standardization of a Values Inventory," Journal of Educational Psychology, XXX (January, 1939), 53-62.

F. Wickert, "A Test for Personal Goal-values," Journal of Social Psychology, XI (1940), 259-274.

CHAPTER III

THE CONSTRUCTION OF A VALUE TEST

The Generalized Technique

The technique for constructing a value test may be said to consist of seven basic points or steps, which are an adaptation of a general approach to test construction set up by the Evaluation Staff of the Eight Year Study of the Progressive Education Association. The steps are: (1) a statement of the assumptions on which such a test rests; (2) a clear statement of the objective of the test; (3) a method of setting up test elements from behavior situations in which the values selected for testing are commonly demonstrated by people; (4) anticipation of the responses people will make to the test situations; (5) provision of adequate facilities for the recording of those responses; (6) a method of scoring the responses; and (7) a technique for interpreting the scores. The first part of this chapter is a discussion of points one to five. A specific test of values illustrating the five steps will constitute the second part of the chapter, and the third part will consist of the method of scoring and interpreting the test.

The Assumptions Underlying a Value Test

There are at least seven assumptions on which the construction of a value test rests. Some of them are not in a real sense assumptions, but more properly hypotheses. None of them can be proved or disproved at present, except as value tests supply evidence for or against them. Therefore it may be best to accept them for the time being, and begin the experimental accumulation of evidence which may later be used for their verification or rejection. The assumptions are (1) that a "value" is any object, idea, condition, or activity consciously or unconsciously believed by an individual to have an effect on his well-being or self-realization, either directly to himself, or indirectly through those with whom he is concerned, and regardless of the

extent to which the individual is aware of such values; (2) that those values which the individual believes have the greatest potential power to contribute to or detract from his well-being will motivate his behavior to a greater degree than those values whose power is relatively less; (3) that the individual is primarily a self-seeking organism, where the term self-seeking means the urge to preserve and further any interests, either of his own or of others whose well-being is believed important to him; (4) that in any given situation, the individual will attempt to act in such a way that what he considers to be the greatest net gain will be brought about in the values he cherishes, with due respect to such considerations as immediate or deferred satisfactions, relative advantage of a group of minor satisfactions as contrasted to a single major satisfaction, and other similar complications; (5) that a set of values can be named or discovered which are universal enough to be widely useful in such a test; (6) that it is theoretically possible to interpret a person's behavior in terms of values when all the possibilities of action are keyed for those values; and (7) that it is possible to set up situations for testing in such a way as to obtain responses from an individual which will be for all practical purposes the equivalent of his responses in life situations. Evidence related to items two, four, five, six, and seven, which are more truly hypotheses than assumptions, may be expected to accumulate as value tests are constructed and tried out. The first and third assumptions are based on widely accepted psychological thought which is in harmony with common sense evidence if not supported yet by objective proof.

The Objective of a Value Test

The principal purpose of a value test is to reveal the pattern of an individual's intimate personal values in any given area of life. The area to be studied must be selected before it is possible to decide what values will be tested. It may be desired to test for values which operate in all general life areas alike, and which are therefore relatively general in nature, or it may be desired to test for a more restricted value pattern in such an area as musical activities alone, or in problems related to the selection of clothes. In each case the objective will determine (1) the specific values to be incorporated in the test,

and (2) the selection of situations in which the values may be demonstrated in behavior.

Building Test Elements from Behavior Situations

Six basic steps should be kept in mind in setting up test elements. (1) Determine the specific acts by which individuals employ values; that is, in what ways do values enter into individual behavior. (2) Find some ordinary situations in which these specific behaviors commonly occur. (3) Decide what type of problem is to be used for test reactions, or how the problem is to be presented in order to secure the appropriate specific behaviors. (4) Determine what elements are needed in the test problems to create opportunities for the individual to meet such situations and react to them. (5) Find sources from which these elements may be found, or discover ways of creating such elements. (6) Determine the criteria for selection of test elements. Each of these steps may be expanded into a more detailed guide for test building.

Effect of values on behavior.--Values may be said to affect individual behavior in the following actions: (1) Recognizing in a situation and its possible courses of action, elements potentially able to affect one's values. (2) Recognizing the possible relative gains or losses in values involved in each essential part of the situation. (3) Recognition of the possible reactions that might be chosen in the situation. (4) Weighing the relative desirability of such considerations as immediate or deferred results, temporary or lasting results, minor (one or more) or major (one or more) rewards possible in each available course of action. (5) Weighing the relative desirability of courses of action which bring value to the individual directly or by means of promoting the well-being of others whose well-being is vital to him. (6) Selecting a course of action which is expected to result in the greatest net gain in values. (7) Recognizing indications in any stages of action that a previous choice should be changed or should remain the same. (8) Readjusting the course of action in the light of re-evaluation as behavior proceeds. (9) Readjusting the course of action in the light of other values not at first involved but brought into consideration by the action as it proceeds.

Having recognized the ways in which values enter into

behavior, it is then necessary to select test problems which permit the exhibition of these behaviors. Since the test used in the present study was constructed for college students, illustrative materials for the test-building techniques will be appropriate to that group.

Selecting test situations --The suggested criteria of a good problem for value testing are as follows: (1) It should be a real problem. (2) It should concern a decision which will settle a major adjustment in life. (3) It should be a problem which can be discussed without stirring up undue emotional reactions.

Several problems appear to meet the qualifications. Selection of a vocation, a wife or husband, a place in which to establish a home, a social group to join, a program of leisure-time activity, or a college to attend all seem to be appropriate. At this point it is necessary to decide whether the test shall consist of one or more than one problem. If it were certain that an individual's values do not vary in their relative importance from problem to problem, it would be sufficient to use one comprehensive problem. As a check on the consistency with which an individual's values operate in different problems, however, it is helpful to use more than one problem, and to make the problems overlap in the matter of values, so that it is possible to compare the relative ranks of the same values in different situations. The practical considerations which determine how many problems may be used are the length of the test, the difficulty of scoring it, and the number of appropriate problems available. On the assumption (which is in part at least supported by data in Chapters V to VII) that three problems of somewhat different nature offer a fair sampling of an individual's behavior in all possible situations, and because the length of a test of three problems is not unduly great, that is the number used in the test presented in this study.

The selection of the three problems now depends on the extent to which each problem involves the values to be measured, and whether it is possible to have each value appear at least twice in the test without creating any unnatural or otherwise technically undesirable situations. For that purpose a technique is offered for putting each of any given set of values twice into three problems, so that each value appears in two of the three

problems and there are thus eight values in each problem. The steps follow: (1) Write out a list of values to be tested, and give each a number. (2) Write out a list of life problems vital to the group to be tested and list under each problem the numbers of all values that can be appropriately studied in that problem. (3) Select the best problem in terms of the criteria of fitness, and place its value numbers below it in a column in numerical order. (4) Select the next best problem, and list its value numbers below it in a column parallel to the numbers of the first problem, skipping spaces for missing numbers. Select a third problem in the same way. (5) Determine whether any values are present only once in the three problems. If so, select some other problem in which that value is present, as a substitute for one of those in which it is absent, and list it as before. Continue this analysis until all values are present at least twice, with not more than eight values in each problem. (6) Decide how many values are to be included in each test, and check that number of the possible values in each problem in such a way that each value enters into the total test twice. Eliminate the other value numbers, after ascertaining (in cases of duplicated values) which problem offers the most natural setting in which to test for any value. (7) For each problem, make a basic statement or description of one solution for each value, in which that value is the one most possible of attainment, and in which the other values in the test are not possible of attainment. This technique is illustrated in Table 1.

At first it was decided to use problems four, five, and six, but values five and eight were present only once in these three problems. Therefore problem five was dropped and problem three tried. Following step six in the process, it was decided to use values one, four, five, eight, nine, ten, eleven, and twelve in problem three; values two, three, six, seven, nine, ten, eleven, and twelve in problem four; and values one, two, three, four, five six, seven, and eight in problem six. With this arrangement half of the values in each problem will also be found in one of the other two problems, and the other half in the remaining or third problem, so that inter-problem comparisons of value ranks may be made and a final single composite rank order of values may be set up for all twelve values.

It now becomes necessary to find ways of presenting these

problems for the individual's reaction.

TABLE 1
SELECTION OF PROBLEMS FOR A VALUE TEST

Values to Be Tested					
1. Money	5. Home Life	9. Personal Attractiveness			
2. Social Position	6. Comfort	10. Excitement			
3. Political Power	7. Religion	11. Friends			
4. Social Service	8. Security	12. Intellectual Activity			
Possible Problems and Values Involved					
1 Choose Wife or Husband	2 How to Spend Leisure	3 Choose a Vocation	4 Choose a Social Group	5 Choose a School	6 Choose a Place to Live
1	1	1		1	1
2	2	2	2	2	2
3	3	3	3	3	3
	4	4	4	4	4
5	5	5			5
	6	6	6	6	6
7	7	7	7	7	7
8		8			8
	9	9	9	9	
10	10	10	10	10	10
11	11	11	11	11	11
12	12	12	12	12	12

Presentation of the problems.--No method is best for all cases. Here are three possibilities: (1) Description of a life problem in a logical situation where the individual is asked to select and describe a course of action. The problem may or may not be a personal one, and the amount of explanation of the student's selection may vary. (2) Description of the behavior of an hypothetical individual, where the person being tested is asked to report whether he would have behaved the same as, or in a different manner than the person described. There are many possible variations of this technique. (3) Presentation to the individual of a real life problem which he will likely face in the normal course of events and in the near future, or which he may now be facing, where controlled opportunities are provided for a complete and life-like reaction to the problem following the steps which normally are taken in such analyses and solutions in real life. The last method is the one believed to offer the best possible

results for value testing, because it is likely to be more personal, more realistic, and more interesting to the person tested; because it offers the possibility of a much wider variety of reactions than either of the other two methods; and because the controls increase the objectivity of the interpretation of the test. It is therefore a better sample of actual behavior and the likelihood that results obtained from such a test will correspond closely to actual behavior is increased.

Securing test elements.--From analysis of the behaviors in which values are involved, it is possible to describe a number of kinds of test contents. Those included in the preliminary materials for the test used in this study are, (1) a problem situation calling for selection of a course of action from a number of alternative courses given; (2) a problem situation calling for the ranking of all the available courses of action in the order of their preference; (3) a combination of items one and two; (4) opportunity to indicate advantages and disadvantages believed to accompany each of the alternative courses of action; (5) a series of choices between several alternative courses of action, presented two at a time in all possible combinations; (6) continuous opportunity throughout the whole procedure for the individual to indicate any feeling of doubt or of greater confidence that his first choice was a wise one; (7) opportunity to revise original judgment at various points in the process of choosing; and (8) opportunity to indicate what idea caused him to change his mind if and when he did. Others might be included, or some of these might be left out, depending on the phase of evaluational behavior it is desired to study. Numbers six and eight were eliminated in early drafts of the test for practical considerations, but the others were all retained. When the list is complete it is necessary to determine the sources from which these test elements may be obtained.

Sources of test elements.--Because test contents must meet some very rigid criteria of fitness, their selection should be made with great care to see that they are pertinent to the people to be tested and as true to life as possible so that there are no factors present to cause interference in the individual's reaction to the test in a natural manner. It is helpful to obtain test content from sources which reliably reflect the real problems of the population to be tested. Some such sources are

essay writings of individuals in which they state their own problems and discuss them, questionnaires which have elicited frank answers from students about their own problems, studies made of student problems and student life, life problem lesson units which were carefully and reliably prepared for student use, current literature in which problems are described but not solved, films which portray life problems, and other such areas.

Some of the more mechanical test procedures such as described in item five or item seven above may be obtained from examinations of other tests to see what mechanical test devices are available. In unique situations new devices may be set up to meet specific needs. Some ingenuity is needed at times.

Criteria of good test elements.--The validity of the test will depend to a large degree on the use of valid criteria for the selection and description of test contents. For a value test ten are suggested. (1) Avoid obvious implications in the wording of the test for social approval of any item or any available choice of action. (2) Courses of action should be described in general functional or descriptive terms rather than by specific examples. This is suggested in order to avoid any individual aversion toward certain specific examples which might come up in individual cases. (3) Each problem must be comprehensive enough to involve logically and naturally all the values it must carry in the test. (4) There must be no ambiguity in any statement of a problem or of a course of action. (5) There must be no ambiguity or confusion in the directions for proceeding through the test. (6) The individual must be required to supply nothing to the test situation but his own preferences. (7) Each major course of action must be focused clearly around one major value and only one value. (8) The problem must be one which plays a vital part in the attainment of the values used, but which does not involve undue emotional stress in its discussion. (9) The wording of various parts of the test must be wholly free from any possible indication that later judgment is to be passed on any of the reactions an individual is required to make. (10) Other criteria which are generally recognized for the mechanical efficiency of a test should be considered, but need not be listed here.¹ In

¹Good discussions may be found in the following sources:
 a) Ralph W. Tyler, Constructing Achievement Tests. Columbus: The Ohio State University, 1934.

addition it is essential to have a good understanding of the population to be tested.

Provisions for Response to Test

The test maker must anticipate all the possible responses that might be made to a situation. The type of opportunities provided for these responses will be determined largely by the test element to which response is being made. In the interests of control of various factors in the test, mechanical checking devices are very useful provided they offer sufficient latitude in the number and nature of desirable responses. This condition can usually be met if the test situations have been thoroughly analyzed in advance and all possible reactions listed and provided for. Mechanical checking is particularly helpful where it is desired to have all responses keyed for interpretation in terms of values. The arrangement and types of reaction called for in *The Study of Choices*¹ were selected to match as far as possible the normal steps in problem solving in life situations: (1) Meeting the problem, surveying it in a general way, and making a tentative decision on the course of action to be followed; (2) a period of thinking over the various available courses of action and noting the desirable and undesirable characteristics of each; (3) a somewhat detailed analysis of the problem by contrasting the possible courses of action with each other; and (4) a final judgment based on the previous analysis. Therefore provision was made in the test for each of these four types of response. In the interests of test control, each problem was said to have eight possible courses of action, each of which was keyed in terms of one major value.

Provision for Recording Choices of Action

The kind of record an individual will make of his response

b) Herbert E. Hawkes, E. F. Lindquist, and C. R. Mann, The Construction and Use of Achievement Examinations. Boston: Houghton Mifflin Co., 1936.

c) Douglas Spencer, Fulcrum of Conflict. New York: World Book Co., 1939.

d) Various mimeographed bulletins of the Evaluation Staff in the Eight-Year Study of the Progressive Education Association, 6010 Dorchester, Chicago, Illinois.

¹Infra, p. 34.

depends on whether his response is a projection of his own ideas on a blank field, or selecting a response from a group of stated alternatives. Where selection is required, space should be provided for the recording of a number or a check mark indicating the item selected, and the degree of preference shown for it. Where projection is required enough space must be available for the student to write his ideas.

To record a tentative decision based on the first survey, space may be provided for recording the numbers of the best and next best courses of action, and the worst and next worst courses of action. Inasmuch as the fourth step in the problem is a judgment of the same kind, space for that set of choices can also be provided in the same place, as shown in the test answer sheet.¹ For noting the desirable and undesirable characteristics of each course of action, space must be provided for written answers, since this type of response is most meaningful for a value test if it is entirely supplied by the individual. Short two- or three-word answers are apparently as valuable as complete sentences, take much less space, and are easier to score. For contrasting each of the choices of action with all the others, the paired-comparison technique is suggested. Provision for response may be made by setting up a list of numbers representing the paired variables so that the individual may check or circle the one selected in preference to the other.² These paired variables should be mixed up in the order of their presentation so that the order in which they are considered does not become too repetitious and so that the purpose of the comparisons is not too readily apparent. There is less likelihood that an individual will attempt to "load" his response if the difficulty of such a possibility is increased by mixing the items.

Final modifications of the test built along the lines of this technique must be empirically determined by experimental administration of the test and the use of item analysis and other checks of acceptability. Before going into the scoring of the test, it will be helpful now to examine the test used in the study, which was constructed from the technique just described.

¹Infra, p. 48.

²Infra, p. 50.

A STUDY OF CHOICES

Asahel D. Woodruff

This is an exercise in dealing with problems which you are likely to face in the very near future. Directions in each part of the exercise explain what you are to do. Record all your answers on the accompanying answer sheet, and write nothing on this exercise booklet. This study is meant to help you to become aware of how you appraise situations and how you tend to solve similar life problems.

PROBLEM A

BASIC PROBLEM:

Selection of the place in which you will establish a home deserves careful study. It may influence your whole life. Assume that you are facing such a choice now, and must choose a home from among the eight places described below. Consider only those factors and influences which are really vital to you as an individual. Read the directions carefully before beginning each phase of the problem.

PART I

Read the eight descriptions. Select the place you like best; the place you like next best; the place you like least; and the place you like next least. Put the numbers of these four places on the answer sheet in the space provided. Take the eight descriptions literally; do not add any qualities or faults to them that are not stated in the descriptions. In each case the main question for you to decide is, "Is this what I want?" Now turn the page and begin reading, keeping in mind that you will have to make the four selections described above.

Place Number 1

This place offers rather unusual opportunities both in your line of work and for additional income in other ways, and the chances of making money fast are very good. Some have even made fortunes here. There is very little society life, and scanty chance for political activity, as a powerful clique is well entrenched and does not permit interference. There is a fair school system, and the townspeople are, on the whole, progressive and successful. Most people are admittedly here for the business opportunities, and many plan to move elsewhere when they have enough to retire on. Keeping up with the competition requires vigorous attention to work, and allows little time for the arm-chair, or afternoons on the beach, or golf, etc.

Place Number 2

This place puts a great deal of emphasis on society life. There is a very highly admired inner circle of young families who control the social situation pretty well. With many of them you

will come into intimate association in your work, and you will have an excellent opportunity to become an important figure in this group. The political activities of the place are quiet and sedate; the mayor is extremely popular. Your work and your social obligations will keep you too busy for much home life or service in the community. There are no beaches or similar places for days of sunning. You can earn an adequate living here, but no one ever gets wealthy. The pleasant society program makes up for that, however.

Place Number 3

This place has a lively political history. The most promising leaders in the last few years have all been called into higher public positions in larger capacities, such as legislators and senators, or even governor or cabinet member. At present there is a demand for able political leadership. The place is not famous for its home life, partly because of the prevalence of apartments and scarcity of houses. There are few resorts or places for relaxation. A few rich families control the business and professional opportunities in the area, but you can earn a comfortable income. These families also maintain a closed social circle, but social affairs are not a major issue with your crowd.

Place Number 4

This place is noted for its progressive attitude toward problems of human and social betterment. Two civic organizations have repeatedly initiated projects of great benefit to the community as a whole, and especially to the less privileged young people. The local citizens back such movements willingly. Such activities often seriously interfere with one's own home life, however. A low income population has resulted in an absence of very lucrative activities, but your income will be comfortable. Social activities receive a relatively minor emphasis, and political activity here is synonymous with much hard work, and often plenty of praise and blame. However there is the satisfaction of seeing real community response to efforts at improvement.

Place Number 5

This place has attractive and well spaced residential areas and takes pride in the homes and yards, and in the ideal family life of the people. Most of the homes are owned by those who occupy them. Few of the people have large incomes and there are few political problems beyond the ordinary routine of community management. Most of the leisure time is spent at home by the people, who take pride in the personal care of their homes and yards. There is little effort to improve the public welfare, and a very casual social program exists.

Place Number 6

This place has an ideal climate, and quiet parks and beaches where one can relax and get away from worry and strain. There are a number of good restaurants, and other places which offer many of the aspects of comfortable living. Life moves at a comfortable pace. You will have a decent income, without becoming

wealthy, and there will be a haphazard social program, of a very informal nature. Political activities are looked on as a necessary nuisance. There is an attitude of satisfaction with the world as it is.

Place Number 7

There are several fine churches in this place, all of which are well attended. Many of the sociable activities of the place revolve around various church groups, rather than home groups or clubs. Resorts and recreation centers are few; they do not thrive because the people are too busy for them. Your work here will pay you a comfortable salary, but will keep you too busy for much other activity.

Place Number 8

This place has pioneered in a program of social and economic security for its citizens. It has established a safe, practical method of guaranteeing job or income security to all people who, for any reasons, need such assistance. In other respects the place is no different from most others. You can earn a comfortable living here, you will have little or no political activity, your home life will be pleasant but often interrupted by outside duties. Social life and the inducements to recreation and relaxation are scarce.

PART II

You have just considered eight possible courses of action. You probably have in mind some of the desirable as well as undesirable features of each one of the eight places. On the answer sheet space is provided for comments both favorable and unfavorable to each place. Write at least one, but not over five comments both for and against each of the eight places described. Do not press yourself. Write only those comments you readily think of. Do not use complete sentences. Two or three words will do in most cases. Do not spend over 8 or 10 minutes here.

PART III

Many people make a detailed analysis of a problem after their first preliminary examination of it. This provides a check up on the first decision and an opportunity to make any changes that seem desirable. Below you will find a series of short statements, each of which is a comparison of two of the places, on the basis of one fact about each. Read each sentence. Decide in each pair which place you would choose on the basis of that one pair of sentences. Put a circle around your choice on the answer sheet, under Part III of Problem A.

Sample Statement: a. Girl number 1 has curly hair. Girl
number 2 is a good dancer. 1 2
(If you preferred a good dancer to a girl with curly
hair, you would circle "2," but your answers will go
on the answer sheet instead of on this booklet.)

a. Place number 1 has very good chances to make money fast. Some

people have even made fortunes here. Place number 2 puts a great deal of emphasis on society life.

- b. Place number 2 puts a great deal of emphasis on society life. Place number 3 offers a chance to become an important political leader with great power.
- c. Place number 3 offers a chance to become an important political leader with great power. Place number 4 has a progressive attitude toward problems of human and social betterment.
- d. Place number 4 has a progressive attitude toward problems of human and social betterment. Place number 5 has attractive homes and well developed family life.
- e. Place number 7 has a fine religious program. Place number 5 has attractive homes and well developed family life.
- f. Place number 8 has economic and social security for its citizens, and safety from want. Place number 7 has a fine religious program.
- g. Place number 3 offers a chance to become an important political leader with great power. Place number 1 has very good chances to make money fast.
- h. Place number 4 has a progressive attitude toward problems of human and social betterment. Place number 2 puts a great deal of emphasis on society life.
- i. Place number 7 has a fine religious program. Place number 1 has very good chances to make money fast. Some have even made fortunes here.
- j. Place number 8 has economic and social security for its citizens, and safety from want. Place number 1 has very good chances to make money fast.
- k. Place number 3 offers a chance to become an important political leader with great power. Place number 5 has attractive homes and well developed family life.
- l. Place number 6 is comfortable, quiet, relaxing and soothing. Place number 4 has a progressive attitude toward problems of human and social betterment.
- m. Place number 7 has a fine religious program. Place number 6 is comfortable, quiet, relaxing and soothing.
- n. Place number 8 has economic and social security for its citizens, and safety from want. Place number 6 is comfortable, quiet, relaxing and soothing.
- o. Place number 1 has very good chances to make money fast. Some people have even made fortunes here. Place number 4 has a progressive attitude toward problems of human and social betterment.
- p. Place number 2 puts a great deal of emphasis on society life. Place number 5 has attractive homes and well developed family life.

- q. Place number 6 is comfortable, quiet, relaxing and soothing. Place number 3 offers a chance to become an important political leader with great power.
- r. Place number 4 has a progressive attitude toward problems of human and social betterment. Place number 7 has a fine religious program.
- s. Place number 5 has attractive homes and well developed family life. Place number 8 has economic and social security for its citizens, and safety from want.
- t. Place number 2 puts a great deal of emphasis on society life. Place number 7 has a fine religious program.
- u. Place number 5 has attractive homes and well developed family life. Place number 6 is comfortable, quiet, relaxing and soothing.
- v. Place number 3 offers a chance to become an important political leader with great power. Place number 7 has a fine religious program.
- w. Place number 2 puts a great deal of emphasis on society life. Place number 8 has economic and social security for its citizens, and safety from want.
- x. Place number 5 has attractive homes and well developed family life. Place number 1 has very good chances to make money fast. Some people have even made fortunes here.
- y. Place number 8 has economic and social security for its citizens, and safety from want. Place number 3 offers a chance to become an important political leader with great power.
- z. Place number 6 is comfortable, quiet, relaxing and soothing. Place number 2 puts a great deal of emphasis on society life.
- aa. Place number 4 has a progressive attitude toward problems of human and social betterment. Place number 8 has economic and social security for its citizens, and safety from want.
- bb. Place number 1 has very good chances to make money fast. Some people have even made fortunes here. Place number 6 is comfortable, quiet, relaxing and soothing.

PART IV

Have you changed your mind about how you would rank the eight choices? Write "yes" or "no" on the answer sheet for this question. If you write "yes," show how you would change the list, by making a new set of entries in the second column (the one next to the column in which you ranked them first), but do not erase or change your first answers. Leave them as they are.

PROBLEM B

BASIC PROBLEM

One's life after college is often influenced by the social activities engaged in during college years. There are usually a number of different social groups such as clubs, fraternities, dormitory groups, and such organizations on every campus. Each one has its own particular strong points, so that the student must decide what to do in the event he has the opportunity to join one or more of these groups.

PART I

Eight social groups are described here. Assume that you are wanted as a member by all eight of these groups, and that there is nothing to prevent your joining any one of them. Select the group you like best; the group you like next best; the group you like least; and the group you like next to the least. Record your choices on the answer sheet.

Group Number 1

This group is often referred to as the "400" of the campus. It dominates the social activities. Membership in the group brings high social distinction. The members care little for positions of influence in other lines of activity as though such activities were unimportant to them. They do not maintain an elaborate "house," but take pride in the traditions which have grown up around the old quarters. The group is small, and finds its satisfaction primarily in the society of its own members and its own particular group interests.

Group Number 2

This group has a long record of successful control of student activities and campus politics. It has maintained a rather close circle with this control in mind. The members have neglected their "house" which is obviously an old and much used place. They make little effort to improve themselves in less practical ways, being contented with their fraternal activities as long as they dominate the important campus positions. They are friendly toward everyone, but their real friendships are confined to their own group. They engage in social activities only incidentally.

Group Number 3

This group has a new "house" which costs them little to maintain. It is the most comfortable house on the campus. The members spend a good deal of time in it. They also have an unusually attractive menu program at a convenient figure for the members. Each person is accepted for what he is, and acts as he feels. They have spent their money principally for comfortable furniture, instead of paintings or other decorative objects. They conduct a normal program of acceptable activities, keep their friendships somewhat within their own group, and make no play for social leadership or campus control of any sort.

Group Number 4

This group has an unusual effect on its members. After a year or two in the organization they develop a sense of social ease and poise, and a fine personal attractiveness. They do not have a particularly attractive or comfortable house, but make up for it in the personal charm of the members. They have a normal social program, but do not seek a wide range of intimate friendships beyond their own group, and have taken no important part in the control of campus activities.

Group Number 5

This group is sponsored by a religious organization with which you are sympathetic. The program is built around the ideals and symbols of the religious organization, and attempts to combine these ideals with sociability and fraternal activities. The group members seek no social prominence, and do little in campus politics. Their parties are pleasant, but consciously avoid extremes of hilarity. Members are accepted for what they are, attention being paid primarily to the personal traits the group admires. The circle of outside friends is not large.

Group Number 6

This group does the exciting thing whenever possible. In their social events anything can happen. A timid soul would not be at home here. Some of their activities get them into trouble with the school officers, but the group invariably gets away with it. The members have options on some very interesting and exciting summer vacation jobs in various parts of the country, which they pass along to the incoming members as the older ones graduate. Their close friends are mostly within their own organization. They are not interested in being social leaders, or campus politicians. Their house is not outstanding. They want members who like to live fast and can stand excitement.

Group Number 7

This group is large, and holds open house for all students frequently. The members have developed the ability to make friends on a wide scale, both in other social groups and among non-affiliated students. There is no social distinction in their minds, and no urge to dominate the activities on the campus. Friendliness substitutes for other more material advantages in their house, which is well-used and shows it.

Group Number 8

There are several honor students in this group. Some of them do fine work in various subjects and win recognition. The group is always working on some challenging intellectual problem, and has lively discussions at the table and in the various groups. The members do not care for campus politics, and participate only moderately in social activities. Their friends are mostly among the more intellectual people. They have an ordinary house.

PART II

Again you have just considered eight possible courses of action. You probably have in mind some of the desirable as well as undesirable features of each one of the eight social groups. On the answer sheet write at least one, but not over five comments both for and against each of the eight groups. Do not press yourself. Write only those comments you readily think of. You do not need to use complete sentences; two or three words will do in most cases. Do this part in not over 10 minutes.

PART III

Once again you are asked to make a detailed analysis of the problem by reading carefully the short descriptions of each group and indicating your choice of one of the two groups in each pair of numbered statements. Proceed exactly as you did in Problem A.

- a. Group number 1 dominates the social activities of the campus, and has high social distinction. Group number 2 successfully controls student activities and campus politics.
- b. Group number 4 gives its members a sense of social ease and poise, and a fine personal attractiveness. Group number 5 is closely related to a religious organization and encourages religious ideals and sociability.
- c. Group number 2 successfully controls student activities and campus politics. Group number 3 has a comfortable house where the members relax and enjoy good food.
- d. Group number 8 has several honor students and works on many challenging intellectual problems. Group number 6 does the exciting thing whenever possible and lives fast.
- e. Group number 3 has a comfortable house where the members relax and enjoy good food. Group number 4 gives its members a sense of social ease and poise, and a fine personal attractiveness.
- f. Group number 8 has several honor students and works on many challenging intellectual problems. Group number 7 makes friends on a wide scale and makes no social distinctions.
- g. Group number 3 has a comfortable house where the members relax and enjoy good food. Group number 1 dominates the social activities of the campus, and has high social distinction.
- h. Group number 7 makes friends on a wide scale and makes no social distinctions. Group number 5 is closely related to a religious organization and encourages religious ideals and sociability.
- i. Group number 1 dominates the social activities of the campus, and has high social distinction. Group number 6 does the exciting thing whenever possible and lives fast.
- j. Group number 5 is closely related to a religious organization and encourages religious ideals and sociability. Group num-

ber 3 has a comfortable house where the members relax and enjoy good food.

- k. Group number 4 gives its members a sense of social ease and poise, and a fine personal attractiveness. Group number 6 does the exciting thing whenever possible.
- l. Group number 3 has a comfortable house where the members relax and enjoy good food. Group number 8 has several honor students and works on many challenging intellectual problems.
- m. Group number 1 dominates the social activities of the campus, and has high social distinction. Group number 4 gives its members a sense of social ease and poise, and a fine personal attractiveness.
- n. Group number 6 does the exciting thing whenever possible and lives fast. Group number 3 has comfortable house where the members relax and enjoy good food.
- o. Group number 8 has several honor students and works on many challenging intellectual problems. Group number 5 is closely related to a religious organization and encourages religious ideals and sociability.
- p. Group number 4 gives its members a sense of social ease and poise, and a fine personal attractiveness. Group number 7 makes friends on a wide scale and makes no social distinction.
- q. Group number 2 successfully controls student activities and campus politics. Group number 8 has several honor students and works on many challenging intellectual problems.
- r. Group number 1 dominates the social activities of the campus, and has high social distinction. Group number 5 is closely related to a religious organization and encourages religious ideals and sociability.
- s. Group number 4 gives its members a sense of social ease and poise, and a fine personal attractiveness. Group number 8 has several honor students and works on many challenging intellectual problems.
- t. Group number 6 does the exciting thing whenever possible and lives fast. Group number 2 successfully controls student activities and campus politics.
- u. Group number 8 has several honor students and works on many challenging intellectual problems. Group number 1 dominates the social activities of the campus, and has high social distinction.
- v. Group number 3 has a comfortable house where the members relax and enjoy good food. Group number 7 makes friends on a wide scale and makes no social distinctions.
- w. Group number 5 is closely related to a religious organization and encourages religious ideals and sociability. Group number 2 successfully controls student activities and campus politics.

- x. Group number 7 makes friends on a wide scale and makes no social distinctions. Group number 1 dominates the social activities of the campus, and has high social distinction.
- y. Group number 4 gives its members a sense of social ease and poise, and a fine personal attractiveness. Group number 2 successfully controls student activities and campus politics
- z. Group number 7 makes friends on a wide scale and makes no social distinctions. Group number 6 does the exciting thing whenever possible and lives fast
- aa. Group number 2 successfully controls student activities and campus politics. Group number 7 makes friends on a wide scale and makes no social distinctions.
- bb. Group number 6 does the exciting thing whenever possible and lives fast. Group number 5 is closely related to a religious organization and encourages religious ideals and sociability

PART IV

Have you changed your mind about how you would rank the eight groups? Write "yes" or "no" on the answer sheet for this question. If you write "yes," show how you would change the list, by making a new set of entries in the second column (the one next to the column in which you ranked them first), but do not erase or alter the numbers you put down at the beginning of the problem.

PROBLEM C

The selection of a vocation involves numerous important factors. Assume that you have not yet chosen your life's work, but are going to do so right now. Read carefully the following eight descriptions of types of work. Select the vocation you like best; the vocation you like next best; the vocation you like least; the vocation you like next to the least. Record these choices on the answer sheet, as you did in the preceding problems.

PART I

Vocation Number 1

In this work you handle and manage large sums of money. Good judgment is essential to success, and success on any scale means wealth. A certain type of training is needed, but it is easy to get. You will be very busy, able to spend little time at home, and often even having to neglect yourself in the stress of crucial days. You must get used to a certain amount of discomfort and lack of refinement at times. In some ways the work will become monotonous, and you will find it best not to do business with your intimate friends, but the work is respectable and honest.

Vocation Number 2

This is a vocation in which your success will be measured

by the extent to which you succeed in doing things which are basically worth while to humanity in general. It requires continuous training as you work. It is hard on good family life, because of its demands on time. You may lose touch with your friends to a considerable extent if you are not careful. There is no opportunity to cultivate the arts, no excitement, and few contacts outside of the realm of vocational activity. The work is very interesting if you are adapted to it, but you will probably never become wealthy.

Vocation Number 3

This work makes light demands on your time. Week-ends, holidays, late afternoons and evenings are never interfered with. Most people in this type of work are able to spend much time at home with the family. The income is adequate, but not large. The work is important to our way of living, but does not develop a person greatly or create new friends. You will be able to cultivate a fine family and home life, and be an important influence in the development of your children.

Vocation Number 4

This work seems to develop the "personality" of those who engage in it successfully. It involves a type of experience which cultivates self-confidence and the ability to dominate a situation when necessary. Since you cannot settle down in this vocation, your close friends will not be numerous. Few become wealthy in this work, but you will be able to live comfortably. The work usually has no particularly beneficial effect on mankind. There can be little of the ordinary type of home life for you in it.

Vocation Number 5

This type of work requires a good mind. It involves much intellectual activity and many challenging problems which must be solved by resourcefulness and clear thinking. It usually provides a modest income. There is nothing "exciting" about it, and there is little time for cultivating friends or for social or community service. You will have to forget more or less about the other phases of personal development, and you will not have much opportunity for a rich home life.

Vocation Number 6

This vocation would appeal to Robin Hood. It is filled with a succession of strange circumstances and potential thrills. The income is a gamble. The work benefits private business rather than society as a whole. You will seldom have a home; just a home town to refer to. There is no time for reading or hobbies. You should not be too fussy about the distinctions between ordinary and superb food, surroundings, entertainment, and the like. You will not be able to maintain close contacts with your intimate friends, as you may be in many distant places and on extended adventures a large part of the time.

Vocation Number 7

In this work you will become widely acquainted and build up many valued friendships in many places. The job has a medium pay scale. It is enjoyed more for the pleasures involved in personal contacts than for the beauty of the surroundings, and it is not exciting or adventurous. However, you will be on the go a great deal, and have little time for a home life or for self-improvement. The work does not require heavy mental concentration. Its effects on society are neutral.

Vocation Number 8

In this work you will be with an organization whose record in the care of its personnel is outstanding. One's position is safe under all circumstances except dishonesty. A retirement plan provides a good life income for retired employees. Depressions have no influence; they do not cause "lay-offs." The income is sufficient for decent living, but the work does not develop the individual much. It is interesting, but your schedule frequently interrupts your free time. You work with a relatively small number of people, and meet few new ones. You need never worry about being out of a job.

PART II

As before, you are now asked to write at least one (but not over five) comments both for and against each of the eight vocations described. State very briefly only those comments which seem important to you. Don't hunt for comments that do not occur to you readily. Spend not over 10 minutes on this.

PART III

Once more you are asked to make a detailed analysis of the problem by reading carefully the short descriptions of the vocations and indicating your choice of one of the two in each pair by putting a circle around the number of that vocation on the answer sheet. Proceed as you did in Problems A and B.

- a. Vocation number 2 consists of doing things which are basically worth while to humanity in general. Vocation number 6 is filled with strange and exciting circumstances and thrills.
- b. Vocation number 4 develops the "personality" of those who engage in it. Vocation number 5 involves much intellectual activity and many challenging mental problems.
- c. Vocation number 3 gives you a lot of time to spend with the family and at home. Vocation number 2 consists of doing things which are basically worth while to humanity in general.
- d. Vocation number 4 develops the "personality" of those who engage in it. Vocation number 7 will enable you to become widely acquainted and build up many valued friendships in many places.

- e. Vocation number 3 gives you a lot of time to spend with the family and at home. Vocation number 4 develops the "personality" of those who engage in it.
- f. Vocation number 8 cares for its personnel and provides a life income for all employees through job insurance and retirement. Vocation number 7 will enable you to become widely acquainted and build up many valued friendships in many places.
- g. Vocation number 6 is filled with strange and exciting circumstances and thrills. Vocation number 5 involves much intellectual activity and many challenging mental problems.
- h. Vocation number 3 gives you a lot of time to spend with the family and at home. Vocation number 1 involves large sums of money, and success on any scale means wealth.
- i. Vocation number 4 develops the "personality" of those who engage in it. Vocation number 8 cares for its personnel and provides a life income for all employees through job insurance and retirement.
- j. Vocation number 7 will enable you to become widely acquainted and build up many valued friendships in many places. Vocation number 5 involves much intellectual activity and many challenging mental problems.
- k. Vocation number 2 consists of doing things which are basically worth while to humanity in general. Vocation number 4 develops the "personality" of those who engage in it.
- l. Vocation number 5 involves much intellectual activity and many challenging mental problems. Vocation number 3 gives you a lot of time to spend with the family and at home.
- m. Vocation number 1 involves large sums of money, and success on any scale means wealth. Vocation number 4 develops the "personality" of those who engage in it.
- n. Vocation number 6 is filled with strange and exciting circumstances and thrills. Vocation number 3 gives you a lot of time to spend with the family and at home.
- o. Vocation number 5 involves much intellectual activity and many challenging mental problems. Vocation number 1 involves large sums of money, and success on any scale means wealth.
- p. Vocation number 4 develops the "personality" of those who engage in it. Vocation number 6 is filled with strange and exciting circumstances and thrills.
- q. Vocation number 2 consists of doing things which are basically worth while to humanity in general. Vocation number 8 cares for its personnel and provides a life income for all employees through job insurance and retirement.
- r. Vocation number 7 will enable you to become widely acquainted and build up many valued friendships. Vocation number 3 gives you a lot of time to spend with the family and at home.

- s. Vocation number 8 cares for its personnel and provides a life income for all employees through job insurance and retirement. Vocation number 5 involves much intellectual activity and many challenging mental problems.
- t. Vocation number 6 is filled with strange and exciting circumstances and thrills. Vocation number 1 involves large sums of money, and success on any scale means wealth.
- u. Vocation number 3 gives you a lot of time to spend with the family and at home. Vocation number 8 cares for its personnel and provides a life income for all employees through job insurance and retirement.
- v. Vocation number 2 consists of doing things which are basically worth while to humanity in general. Vocation number 7 will enable you to become widely acquainted and build up many valued friendships in many places.
- w. Vocation number 8 cares for its personnel and provides a life income for all employees through job insurance and retirement. Vocation number 6 is filled with strange and exciting circumstances and thrills.
- x. Vocation number 1 involves large sums of money, and success on any scale means wealth. Vocation number 7 will enable you to become widely acquainted and build up many valued friendships in many places.
- y. Vocation number 5 involves much intellectual activity and many challenging mental problems. Vocation number 2 consists of doing things which are basically worth while to humanity in general.
- z. Vocation number 7 will enable you to become widely acquainted and build up many valued friendships in many places. Vocation number 6 is filled with strange and exciting circumstances and thrills.
- aa. Vocation number 1 involves large sums of money, and success on any scale means wealth. Vocation number 8 cares for its personnel and provides a life income for all employees through job insurance and retirement.
- bb. Vocation number 1 involves large sums of money, and success on any scale means wealth. Vocation number 2 consists of doing things which are basically worth while to humanity in general.

PART IV

Have you changed your mind about how you would rank the eight vocations? Write "yes" or "no" for this question on the answer sheet. If you write "yes," show how you would change the list, by making a new set of entries in the second column (the one next to the column in which you ranked them first), but do not erase or change your first answers. Leave them as they are.

A STUDY OF CHOICES

Asahel D. Woodruff

STUDENT'S ANSWER SHEET

NOTICE: The following information will be held strictly confidential, and will not be used in any personal manner whatever. Nothing you write on this sheet will have the slightest influence on your standing in class, or in school, nor will it be shown to any person except the one making this study.

1. Name _____
Last name First name
2. Street address _____
3. Date _____ Age _____
4. School _____
5. Division _____
6. Department _____
7. Draw a circle around the highest grade of school reached: Grades 1 2 3 4 5 6 7
8. High school or prep school 1 2 3 4. College 1 2 3 4 5 6 7 8.
8. In what city did you attend grade school? _____ Public? ☐ Private? ☐
9. In what city did you attend high school? _____ Public? ☐ Private? ☐
10. Are you an active member of a religious organization? _____ Which? _____
11. Social fraternity or club? _____
12. Show where you have spent most of your previous life:
a. Large city (over 100,000) _____
b. Medium city (25,000 to 100,000) _____
c. Small city (under 25,000) _____
d. Country town (under 5,000) _____
e. Farm _____

Indicate the approximate amount of schooling of your parents:

	Grade School			High School		College		
	4th	6th	8th	2 yrs	4 yrs	2 yrs	4 yrs	Graduate Study
13. Father								
14. Mother								

15. Indicate with a check mark the approximate amount of yearly income of your parents (Place check in column 1 if you can estimate that closely, otherwise use column 2):

	1	2
\$ 500 or less		
\$ 500 to \$ 1,000		
\$1,000 to \$ 1,500		
\$1,500 to \$ 2,000		
\$2,000 to \$ 3,000		
\$3,000 to \$ 5,000		
\$5,000 to \$10,000		
Over \$10,000		

16. Father's occupation _____
17. Mother's occupation now _____
18. In what field do you intend to specialize while in college? _____
19. What adult occupation have you chosen? _____

PROBLEM A

PART I Indicate here your selection of places to live:

	Put here numbers of places selected in Part I	Put here numbers of places selected in Part IV
Best place		
Next best place		
Next to the worst place		
Worst place		

PART II

COMMENTS FOR

Place Number 1

COMMENTS AGAINST

Place Number 2

Place Number 3

Place Number 4

Place Number 5

Place Number 6

Place Number 7

Place Number 8

PART III After reading the brief descriptions of places in Part III of the study booklet, put a circle around one number in every pair of numbers, to show which one of the two you prefer over the other one of that pair.

- | | | | | | | | | | | | | | | | | | |
|-----|---|---|-----|---|---|-----|---|---|-----|---|---|-----|---|---|------|---|---|
| (a) | 1 | 2 | (f) | 8 | 7 | (k) | 3 | 5 | (p) | 2 | 5 | (u) | 5 | 6 | (z) | 6 | 2 |
| (b) | 2 | 3 | (g) | 3 | 1 | (l) | 6 | 4 | (q) | 6 | 3 | (v) | 3 | 7 | (aa) | 4 | 8 |
| (c) | 3 | 4 | (h) | 4 | 2 | (m) | 7 | 6 | (r) | 4 | 7 | (w) | 2 | 8 | (bb) | 1 | 6 |
| (d) | 4 | 5 | (i) | 7 | 1 | (n) | 8 | 6 | (s) | 5 | 8 | (x) | 5 | 1 | | | |
| (e) | 7 | 5 | (j) | 8 | 1 | (o) | 1 | 4 | (t) | 2 | 7 | (y) | 8 | 3 | | | |

PART IV Have you changed your mind?_____ (If yes, refer back to Part I on preceding page to make a new record of choices.)

PROBLEM B

PART I Indicate here your selection of Groups to join:

	Put here numbers of groups selected in Part I	Put here numbers of groups selected in Part IV
Best group		
Next best group		
Next to worst group		
Worst group		

PART II COMMENTS FOR COMMENTS AGAINST

Group Number 1

Group Number 2

Group Number 3

Group Number 4

Group Number 5

Group Number 6

Group Number 7

Group Number 8

PART III After reading the brief descriptions of groups in Part III of the study booklet, put a circle around one number in every pair of numbers, to show which one of the two you prefer over the other one of that pair.

(a)	1	2	(f)	8	7	(k)	4	6	(p)	4	7	(u)	8	1	(z)	7	6
(b)	4	5	(g)	3	1	(l)	3	8	(q)	2	8	(v)	3	7	(aa)	2	7
(c)	2	3	(h)	7	5	(m)	1	4	(r)	1	5	(w)	5	2	(bb)	6	5
(d)	8	6	(i)	1	6	(n)	6	3	(s)	4	8	(x)	7	1			
(e)	3	4	(j)	5	3	(o)	8	5	(t)	6	2	(y)	4	2			

PART IV Have you changed your mind? _____. (If yes, refer back to Part I on previous page to make a new record of choices.)

PROBLEM C

PART I Indicate here your selection of Vocations:

	Put here numbers of vocations selected in Part I	Put here numbers of vocations selected in Part IV
Best vocation		
Next best vocation		
Next to worst vocation		
Worst vocation		

PART II

COMMENTS FOR

Vocation Number 1

COMMENTS AGAINST

Vocation Number 2

Vocation Number 3

Vocation Number 4

Vocation Number 5

Vocation Number 6

Vocation Number 7

Vocation Number 8

PART III After reading the brief descriptions of vocations in Part III of the study booklet, put a circle around one number in each pair of numbers, to show which one of the two you prefer over the other one of that pair.

(a) 2 6	(f) 8 7	(k) 2 4	(p) 4 6	(u) 3 8	(z) 7 6
(b) 4 5	(g) 6 5	(l) 5 3	(q) 2 8	(v) 2 7	(aa) 1 8
(c) 3 2	(h) 3 1	(m) 1 4	(r) 7 3	(w) 8 6	(bb) 1 2
(d) 4 7	(i) 4 8	(n) 6 3	(s) 8 5	(x) 1 7	
(e) 3 4	(j) 7 5	(o) 5 1	(t) 6 1	(y) 5 2	

PART IV Have you changed your mind? _____. (If yes, refer back to Part I on previous page to make a new record of choices.)

PLATE I

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
No. Name Group																											
Problem A				Problem B				Problem C				Whole Test Scores															
Size of disagreement between parts				Size of disagreement between parts				Size of disagreement between parts				A= B= C= D=															
I-III IV-III				I-III IV-III				I-III IV-III				A= Total pairs of double C															
Top Values				Top Values				Top Values				B= Sum of all I-IIIs minus sum of all IV-IIIs															
Bot. Values				Bot. Values				Bot. Values				C= Sum of all IV-IIIs															
Values				Values				Values				D= Total of inconsistent choices															
Inconsistencies in Part III =				Inconsistencies in Part III =				Inconsistencies in Part III =				Values ranked by:															
Choices in parts:				Choices in parts:				Choices in parts:				Observation Com. Average															
I IV III f				I IV III f				I IV III f				Frequency															
												1															
												2															
												3															
												4															
												5															
												6															
												7															
												8															
												9															
												10															
												11															
												12															
Comment Analysis																											
Idea														Pos. Neg.													
1. Money				1. Society				1. Money																			
2. Society				2. Political Power				2. Social Service																			
3. Political Power				3. Comfort				3. Home Life																			
4. Social Service				4. Personal Attrac.				4. Personal Attrac.																			
5. Home Life				5. Religion				5. Intellectual Act.																			
6. Comfort				6. Excitement				6. Excitement																			
7. Religion				7. Friendship				7. Friendship																			
8. Security				8. Intellec. Activ.				8. Security																			
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8				

Method of Scoring and Interpreting Test

The time required to score the test completely using all possible types of analysis, is approximately twenty minutes per test. This includes the coding of information contained on the personal questionnaire used in the present study to permit various distributions of the students tested.

Each of the three problems is recorded on the score sheet and all are interpreted in the same manner. The steps are described here. Illustrations of all steps are given in Plates II and III.¹

Recording the Answers

1) Begin with Problem A. From the answer booklet copy the numbers of the places selected in Part I onto the score sheet in Column I under "Choices in Parts." Space the numbers so that the two "best" choices are at the top and the two "worst" choices are at the bottom, ranked in the order of preference. (2) Copy the numbers of the places selected in Part IV in the column marked IV on the score sheet. If no numbers are written on the answer sheet for Part IV it is assumed the individual made no change in his first choices and therefore the numbers in Column I are repeated in Column IV. (3) Read each comment listed in the answer booklet. Determine what the central idea of the comment is, and whether the gist of the comment is positive or negative to the idea. Write down the idea in one or two words in the column on the score sheet headed "Comment Analysis" and record a tally in the appropriate column to the right. The comments from the three problems are not kept separated. When an idea which has been written on the score sheet is repeated in any problem, merely record a tally in the appropriate column. (4) Part III of the problem is scored by finding the numbers of all the values which were rejected when number one was selected, and writing these numbers under the number "1" at the bottom of the Problem A column, and putting the total number of such numbers in the space at the bottom of the number "1" column. Each value is similarly tabulated. The totals at the bottoms of the columns then provide a basis for ranking the values according to frequency of choice. To do this, copy down on the left-hand margin of the column marked "III" the code numbers of the values, in the order of frequency of

¹Infra, pp. 57, 58.

choice with highest frequency at the top. By referring to the code of values in the column of each problem, the names of the values may then be set opposite the numbers. In the column marked "f" the frequency of choice of each value may be listed. If two values receive the same frequency, the order in which they are written may be determined by seeing which of the two was chosen when the two were compared in Part III of the problem. If three or more values are tied in frequency, their order may be best approximated by seeing how each was treated when compared to each other one, and listing them in the order which involves least misplacement. Any actual misplacement may then be indicated by running an arrow upward from any value to the position above any other value over which it was actually chosen when directly compared with it. (5) Proceed with problems B and C in the same manner.

Scoring the Answers

Determination of the value pattern.--The value pattern may be set up by two methods, each of which produces a pattern adapted to a particular usage. The first method may be called "inspection," and the second "frequency." The inspection method produces a longer and more detailed list of values than the frequency method, and the pattern thus set up is probably the better of the two for interpreting the test to an individual or for individual counseling.

There are six steps in the inspection method. (1) Assuming that value consistency means that values tend to stay in the same relative places in a list of values regardless of the problems being reacted to, it is necessary to see to what extent the values in the test occupy a fixed position in the three problems. The first step is to move the values up or down within each problem without changing the order of any of the values within a problem, until each value is in a position the second time it appears in the test which is exactly opposite the position it occupies in its first appearance. For example, examine Plate II, where it may be seen that all of the twelve values are in exactly the same position on the score sheet in both problems in which they appear. However, this perfect alignment of all twelve values is rare. In most cases it is necessary to leave some minimum number of pairs of values unmatched. Connect with parallel

pencil lines the two values of each pair which is perfectly matched. (2) Connect with similar lines any pairs of values which, although not perfectly matched, are out of line by only one position. (3) Connect the two members of all other pairs of values with red lines or lines which will differentiate them from the well-matched pairs. The separated pairs will be called split values or splits. For example, see Plate III. (4) Beginning at the top of the three lists, copy in the column for ranked values headed "Observation," all the well-matched values in the order of the positions they occupy. Leave spaces between these values for others. Then copy the split values into the list, by putting each one into the two places it should occupy by virtue of its double position in the three lists of connected values. It is helpful to set the paired values even with the column margin, and to indent the split values. (5) Connect the two members of each pair of split values with an arrow, indicating which one appeared in the earlier problem and which in the later problem by making the arrow point toward the item which appeared the later of the two. Thus if the value was relatively high in Problem B and relatively lower in Problem C the arrow will point from the higher one to the lower one. (6) What now appears to be a single list of values is in reality a double list of the same twelve values; one list consists of the twelve values the first time they appeared in the test, and the other list consists of the twelve values the second time they appeared in the test. Only those actually appear twice in the list which did not occupy the same relative position for both appearances in the test.

It is now possible to calculate a rank order correlation for the two lists, and thus to indicate with certain reservations which are discussed later, the amount of consistency in the rank order of the values of the individual in the three different problems.¹ In computing rho it is essential that the first rank order follows the order of the values as of their first position. That is, for the split values, the first position is indicated by the tail of the arrow and the second position by the head. Unsplit values have the same rank for both times. This is illustrated in Plate III.

It may be noted here that this method of ranking the

¹Infra, p. 63.

PLATE II

[illegible]

SCORE SHEET FOR CASE NUMBER C29

PLATE III

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
		4	5	Ed		19	P	P	N	N	3	17	8						2										
No. E33 Name						Group U. of C. Advanced Grads																							
Problem A						Problem B						Problem C						Whole Test Scores											
Size of disagreement between parts						Size of disagreement between parts						Size of disagreement between parts						A = 3 B = 2 C = 3 D = 2											
I-III IV-III						I-III IV-III						I-III IV-III						A = Total pairs of double											
Top Values						Top Values						Top Values						B = Sum of all I-IIIs minus sum of all IV-IIIs											
Bot. Values						Bot. Values						Bot. Values						C = Sum of all IV-IIIs											
Inconsistencies in Part IV = 2						Inconsistencies in Part II = 0						Inconsistencies in Part III = 0						D = Total of inconsistent choices											
Choices in parts:						Choices in parts:						Choices in parts:						Values ranked by:											
I IV III						I IV III						I IV III						Observation											
5 5 5 Home Life						8 8 Intell. Act.						5 5 5 Intell. Act.						Intell. Act. 1 1 3											
4 4 4 Soc. Service						4 1 4 Pers. Attr.						2 2 3 Home Life						Home Life 2 2 1											
8 Security						7 Friends						2 Soc. Service						Soc. Service 3 3 1											
3 Pol. Power						2 Pol. Power						4 Pers. Attr.						Pers. Attr. 4 5 2											
6 Comfort						3 Comfort						7 Friends						Friends 5 4 2											
7 Religion						6 Excitement						4 Pers. Attr.						Security 6 9 *											
1 Wealth						4 Excitement						6 Excitement						Pol. Power 7 6 -1											
2 Society						1 Society						4 Security						Comfort 6 7 -1											
						5 Religion						1 Wealth						Excitement 8 8 -2											
												1 Wealth						Security 10 12 -2											
												1 Society						Religion 12 11 -2											
																		Wealth 11 10 -1											
																		Society 12 11 -2											
																		Rel. 11											
																		Soc. 10											
																		Exc. 9											
																		Wealth 12											
																		Rho = .93											
																		* Neutral point identified by student											
Comment Analysis																													
Idea														Pos. Neg.															
Wide Friendships														11															
Society														11															
Intell. Act.														11															
Pride in Community														1															
Vigorous Living														1															
Comfort														1															
Narrowness														1															
Conservatism														11															
Religion														11															
Security														1															
Pol. Power														1															
Pers. Attr.														11															
Excitement														1															
Home Life														1															
Satisfaction in work														1															
Wealth														1															
1. Money						1. Society						1. Money																	
2. Society						2. Political Power						2. Social Service																	
3. Political Power						3. Comfort						3. Home Life																	
4. Social Service						4. Personal Attrac.						4. Personal Attrac.																	
5. Home Life						5. Religion						5. Intellectual Act.																	
6. Comfort						6. Excitement						6. Excitement																	
7. Religion						7. Friendship						7. Friendship																	
8. Security						8. Intellec. Activ.						8. Security																	
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8						
2	7	2	3	4	7	1	7	5	1	5	3	5	3	5	3	6	2	4	1	6	4	1	4						
		6	2	7	2		6		3	5	3		5	3		4	1	6		8	8	1							
		6	6	3	1		6		6	6	6		6	6		8	6	6		7	7	6							
		7	1	2			2		5		1		1	7		7	6		3	1	1	6							
			7	8			3				2		6	5		1													
			8	6							2		2	4		8				8									
				1									4	1						2									
1	1	4	6	7	3	1	5	1	4	3	6	0	2	5	7	0	5	6	3	7	2	4	1						

SCORE SHEET FOR CASE NUMBER E33

values avoids the source of error which Glaser and Maller criticized in the Allport-Vernon value test.¹ It is apparent from studying a completed score sheet in this test that the rank of a value is influenced very materially by the order of the values in the problem in which it does not appear, since four of the other seven values in that list of eight do appear in the problem in which it is absent, and are thus ranked by that double appearance, and since the given value is ranked by its position among those four. The same is true for the given value and the three others in that list, all four of which appear in the remaining problem. Thus the three problems ramify each other so completely that the correctness of the rank order of any one value is easily evident.

The frequency method of ranking the values produces a list in which no split values appear. When this list is compared to the observation list it may be seen that the split values of the observation list have been ranked in a position in the frequency list which is approximately half way between the two positions the same value occupies in the observation list. In the absence of objective evidence, it might be assumed that this average position represents the strength of the common value element which is present in both parts of the split value.

The frequency list is useful for combining the patterns of individuals to make up group patterns. It may be set up in the following manner. For illustrations see Plates II and III. (1) Add together the two numbers which represent the frequency of choice of each value in its two appearances in the test, and divide the total by two. Put this average after the name of each value in the last problem in which it appears. (2) In the score sheet column headed "Average Frequency" list the values in the order of their relative average frequency as shown by the numbers just described. (3) When two values have the same average frequency, list first the one which was ranked above the other in the problem in which they appeared together. If they appeared together in two problems, and were not in the same order with reference to each other both times, give each the same position in the list as tied items. When three or more values have the same average frequency it is usually difficult if not impossible to ascertain which should appear first, and is probably safest to give them tied ranks.

¹Supra, pp. 17, 18.

Scoring the comments.--The comments may be scored by (1) totaling the tallies opposite each idea, and (2) putting this figure with its appropriate plus or minus sign opposite the value to which the idea applies in the column headed "Comments." There will probably be some comments listed which do not refer directly to values in the test. There should be no attempt to assign these comments to values unless it is quite evident from the comments that they refer to a specific value. Values which have no comments to match them may be marked with a zero. Ordinarily the plus comments will appear in the upper part of the value list and the negative comments in the lower part of the value list and the frequencies will give an indication of the extent to which the person was responsive to the values to which the comments refer. Interviews subsequent to scoring the test reveal in many cases that the point at which the positive comments turn into negative comments is usually the point recognized by the individual as a "zero" point in his values; that is, the values at that point are neither positive nor negative to him. Below that point they are negative, and from that point upward they are increasingly positive.

Derivation of scores A, B, and C.--The agreement between Parts I, III, and IV of each problem may be scored as follows: (1) Count the number of rank positions by which the values selected as "best" and "next best" in Problem A, Part I, are displaced in Part III. Consider the "best" choice to be ranked as number one, and the "next best" choice to be ranked as number two. Record this total on the score sheet in the square for "Top Values" and Parts "I-III." (2) Count the displacement for the bottom of the list and record it in the same manner, in the corresponding square on the score sheet for "Bottom Values." Consider the "next to the worst" choice to be ranked as number seven, and the "worst" choice to be ranked as number eight. (3) Count the displacement in Part III of the values selected in Part IV and record it in the same manner, using squares headed "IV-III." (4) Do this for Problems B and C in the same way. (5) Add up the total number of times that the two numbers for both top values or both bottom values in each problem are both zeros, and record this total among the "Whole Test Scores" in the upper right-hand corner of the score sheet, as item A. (6) Add the numbers recorded under the columns headed "I-III," and subtract from this total

the sum of all the numbers recorded in the columns headed "IV-III." Put this remainder among the test scores as item B. (7) Item C is the total of all the numbers listed in all the columns headed "IV-III."

Score A then shows the number of times from a possible total of six (one for the top and one for the bottom values of each problem) the individual made no changes in his value choices for first and second place or for seventh and eighth place as he progressed through the problem. Score B shows the number of points of displacement or disagreement, between the choices recorded in Parts I and III of the test, which were recognized and shown by having the choices in Part IV match those in Part III. Score C shows the number of points of disagreement between the choices in Parts IV and III of the test. This represents failure to recognize contradictions between actions in detailed choices and final major choices.

Derivation of the D score.--The consistency of choice in the paired comparisons of each problem may be scored as follows: (1) Count the total number of rank positions by which all values in Part III of Problem A are out of place for certain choices in the paired comparisons. This is shown by the arrows drawn when the rank lists were recorded.¹ If one value is shown by arrows to have been chosen over two other values both of which appear above it in the list on the basis of frequency, count all the way from the displaced value to each of the other two values separately. Record this total above the value list as "Inconsistencies in Part III." (2) Score each problem in the same way. (3) Add the three scores together and record them as score D for the whole test. This is an index of the amount of inconsistency shown by the individual in the detailed paired choices for the whole test. This type of scoring of paired comparisons is seldom used in current tests, possibly because it either prevents or complicates machine scoring. However, it reveals an important aspect of behavior, as discussed in the interpretation of the D score.²

Group scores and value patterns.--Group scores on all the items in the test may be obtained by subjecting all the various

¹Supra, p. 55, and the illustration in Plates II and III.

²Infra, p. 66.

scores on individual score sheets to ordinary statistical treatment. The values may be translated into a group pattern by setting up columns for all the values in the test, and listing under each value the rank it occupies in the frequency list on each of the individual score sheets. These ranks may be treated as ordinary scores and subjected to statistical treatment. The rank order of values for a group may be set up by ranking the values according to their means in the group distribution, with the small means at the top of the list. Sigma for each value may be used as an index of the homogeneity of the group on that particular value, as well as to show whether the difference in rank for any two values in the list is statistically significant.

Use of part scores for various purposes.--For many practical uses of the test it is not necessary to score it completely. The personal information on the first page of the answer booklet is unnecessary unless correlations of value patterns with other facts about individuals are to be made. The A, B, C, and D scores need not be calculated, and the Comments need not be scored if the value pattern is all that is wanted. A further short-cut to scoring may be had by not recording the paired comparison analysis, but merely counting the number of times each value was chosen in each problem, provided the "frequency" pattern for the individual and for the group is what is wanted. If the test is used as an aid in individual counseling, it may be best to score it completely.

Interpreting the Scores

The Meaning of the Value Pattern

Interpretations of scores on new tests must of necessity be tentative, since validity of interpretation must be based on agreement of the interpretation with recognized facts in many cases. The following interpretations are suggested on the basis of very painstaking examination of some 350 individual tests. The ultimate validity of the interpretations awaits wider use of the technique, but rather clear tendencies may be seen even in 350 cases.

1) Several important considerations must be kept in mind in interpreting a value pattern. The value pattern as shown by the test is an indication of the relative preference only, of any

one value compared to the other values in the list. The amount by which any one value is more or less important than any other value cannot be ascertained by any of the techniques presented in the present study. (2) Other important values of any individual may be missing in a value test and will therefore be missing in the pattern set up by the test. (3) The values in the test may represent any segment of a person's value scale, all above the neutral point, or all below the neutral point, or divided on both sides of the neutral point. (4) The positions such values occupy may vary all the way from the top to the bottom of a person's total value pattern, or they may be clustered in one relatively small area of that total pattern. (5) The values used in the present test are fairly specific, and if the description of one of them should be so re-worded as to suggest a different shade of meaning of that value to the individual, the value might conceivably shift to another relative position. It is doubtful, therefore, if it would be possible to say that any person's evaluation of, e.g., personal attractiveness as it is described in the present study will represent his evaluation of all types of personal attractiveness. In this test only two aspects of personal attractiveness are presented--social ease and poise, and ability to dominate personally a situation when it is desired to do so. Another phase of personal attractiveness, e.g., physical beauty, might be evaluated entirely differently from either of the two foregoing aspects.

It may then be said that a value pattern produced in a value test shows the relative importance to the person tested of each of the values in the pattern but does not reveal the position which other values or other shades of meaning of the values would occupy with relation to the values in the pattern.

The Meaning of "Rho"

Rho is a rank correlation coefficient which is regarded as a score in the technique for value testing, and treated accordingly. It shows the extent to which each value in the test remained in a constant position or rank throughout the test. If rho is high it means that there are few or no split values in the person's value pattern. Obviously the size of rho varies inversely with the amount of value splitting in a test. The presence of split values may be caused by various factors. (1) The split may

reflect the person's ability to discriminate between two shades of meaning of a value and to place each in its proper rank position for him. (2) Splits may be caused by lack of clarity in the test content and therefore have no meaning for the value pattern. (3) Splits may indicate that values do not necessarily hold relatively fixed rank positions in individual behavior, or that the so-called value in the test is not a primary value concept for the person tested. (4) Split values may be caused by confusion in the behavior pattern of the person tested, and therefore reflect causes of the person's difficulty in meeting other problem situations.

The second and third of these are improbable if the test has been carefully prepared. The first is the logical conclusion when the other scores in the test indicate the person is aware of what he is doing, and when the test comments tend to support the positions of the split values. However, if the C and D scores are large, or if the comments seem to contradict the value pattern by what they say or the frequency of emphasis on certain ideas, a low rho score may mean the person is confused in his thinking for some reason. Rho can therefore be reduced in size by split values without necessarily lowering the consistency of a person's actions as judged by values. Such a reduction in rho may mean a high degree of consciousness or discrimination of the finer shades of difference between values in different settings, or between various aspects of larger areas of values.

Inasmuch as some of the groups of people tested tend to have consistently high rho scores, averaging between .80 and .92, rho may be said in such cases to establish the fact that a person's values do not vary from problem to problem, but remain in a consistent rank order, and are basic directive factors in responses to problem situations. Therefore if other groups show a consistent tendency to split values and thus reduce rho, it may be argued on good grounds that this does not imply that values are less constant directive factors in such cases. It may mean that greater individual discrimination is operating, or that the formulation of the person's value pattern is in an immature stage of development or is undergoing a change.

For practical purposes it would appear best to use a test primarily on groups where rho is high, since the descriptive item in the test obviously fit the thinking of people in such groups

better than they fit the thinking in groups where rho is low. Additional forms of a test may be constructed for other groups with more or less discriminative patterns and concepts of values.

The Meaning of the Comments

The comments are the individual's projections of his own interpretations of the choices of action. He writes down what he sees and leaves out what he fails to see, or what he thinks is unimportant. The number of times an idea is mentioned in the comments furnishes some verification of the accuracy of the rank order of the values. The point on the value pattern at which the positive comments tend to turn into negative comments indicates where the neutral point may be for the individual. The wording of the comments often reveals the manner in which the person connects a particular value with an expected result from action. For example, one person wrote in favor of a politically minded fraternity, "engages in school activities. Therefore has active, interesting people with ideas." This phase of political power was rated high in the value pattern. The other phase, representing civic political power of the machine type, was placed near the bottom of the list. Concerning that choice the person said, "Able ambitious people to work with, but no social life; opportunities controlled by rich minority." In this case a value not included in the test, association with challenging, interesting people, is apparently a dominant value for this person, and therefore any situation in which one might meet such people takes on value to the extent that it offers that advantage without involving a negative value such as "controlled by rich minority." When several comments are made which apply to an idea not included in the test, they often reveal other values which may be highly important or very obnoxious to the person.

The Meaning of the A Score

There are six opportunities in the test for a person to rank two courses of action in the preliminary survey of a problem, one at the top and one at the bottom of the preferences in each of the three problems. The A score shows the number of times that the individual made a set of initial choices of courses of action, either at the top or the bottom of the scale of values, which were not changed by any subsequent action in the problem.

It may therefore be interpreted as an index of the person's ability to recognize implications for values in a problem situation, and to select a course of action which will not need readjusting later. Such a score must be interpreted in its relation with the mean score of the group, and the relative size of the mean scores for various groups.

The Meaning of the B Score

When any initial choice in a problem is altered in the paired comparisons, the individual may not be aware of having made the alteration. Therefore, he cannot show the alteration in his final choice. The B score shows the extent to which such alterations were shown in the final choice. It may therefore be interpreted as an index of the person's ability to recognize instances in which his detailed behavior tends to depart from his initial decisions.

The Meaning of the C Score

When the individual is not aware that his choices in the paired comparisons have altered his initial choices, he cannot show such alterations in his final choice. Therefore his choices in Part IV of a problem probably will not agree with his choices in the paired comparisons. The C score shows the amount of such alterations which were not recognized and shown in the final choices. It may therefore be interpreted as an index of a person's tendency to act in a manner contrary to his initial choices without recognizing the contradiction. A high score means the person makes a relatively large number of such changes in his behavior, and does not recognize that they are changes. If B is low and C is high, the person makes many changes and does not recognize them. If B is high and C is low, the person makes many changes but does recognize them. If both B and C are low the person makes few changes and tends to recognize some of them. If both are high the person makes many changes, recognizes many, and fails to recognize many.

The Meaning of the D Score

When a person makes contradictory choices within the paired comparisons of a problem, the extent of such contradictions are shown by the D score. It may therefore be interpreted as an

index of the amount of inconsistency or contradiction a person reveals in his detailed choices of action in a large problem. A low score indicates a high degree of consistency and a lack of contradiction. A high degree of consistency may mean the individual has a good memory of his previous choices, or that he recognizes his likes and dislikes well enough to see clearly the relative value of all of the factors. The latter is the more likely because the details of twenty-eight individual choices can scarcely be manipulated in the mind so as to avoid any contradictory choices. Therefore a low D score implies that the person has previously thought through his values until he has reached a point of relative certainty as to what he wants or does not want. Therefore his choices are sure, and consistent.

Considerable strength is built up for the total interpretation of a person's value pattern and its place in his behavior, when all of the scores just described agree in their contributions to the total picture. Together they have a validity which it might be unsafe to ascribe to any one alone, since each is only a fraction of the total picture, and means little by itself.

Summary

A generalized technique for building a value test has been discussed in detail, except for already well established test-making procedures treated elsewhere in the literature on testing. The steps in the technique have been illustrated by a description of the procedure used to construct a specific test of twelve values, and by the reproduction of the test.

Methods of recording test responses on a score sheet have been described and illustrated by reference to completed score sheets. Methods of scoring the test responses include, (1) ways of deriving a value pattern which may be used for individual counseling and one which may be used for obtaining the value pattern of a group; (2) a way of deriving a score for insight into the meaning and solution of a problem; (3) a way of finding indexes of awareness of the meaning of specific acts of behavior; (4) a way of obtaining an index of consistency of choices; and (5) a method of obtaining an indication of the constancy of the value pattern in an individual's behavior.

The validity of the indexes is not yet completely established and the suggested interpretations are therefore tentative,

although they are based on the scoring of 350 tests. The validity of the test for showing the true value pattern is discussed in the next four chapters.

CHAPTER VI

VALUE PATTERNS AND ELECTIVE ACTIVITIES

One approach to the validation of the test used in this study is through the relation between value patterns and elective activities of individuals and groups. Here it is assumed that a test is valid which reveals a value pattern that is agreeable to the free elective activities of a person. Of the fourteen groups originally included in the study, three will be discussed here, and some comparisons will be made between the value patterns of the groups on the basis of certain interesting differences in their elective activities. A brief description of each of the three groups is contained in the following list.

Group	No. of Cases	Ages	Sex	Description of Group
A	62	17-24	Mixed	U. of Chicago Freshmen; heterogeneous
I	17	15-17	Mixed	Politically-minded club of Hebrew youth; no religious conformity; modernistic element
J	19	18-23	Male	Hebrew students of religion; orthodox; mostly potential Rabbis

Value Patterns Related to Specific Elective Activities of Groups and Sub-Groups

Religious activity is as purely elective an activity as can be found among the groups used in this investigation. That is particularly true in such a group as the University of Chicago Freshman Class where religion is placed so low in the group value pattern. The seventeen- and eighteen-year-old students were divided into sub-groups on the basis of their statements that they were or were not active members in a religious organization. The data are in Tables 27 and 28. For the seventeen-year-old students, the only significant difference in the value pattern is on religion, which ranks eleventh for the active group and twelfth for the inactive group. The inactives tend to value social service higher than the actives, and the actives tend to value society higher than the inactives. Among the eighteen-year-old students, there are significant differences for religion and comfort. Religion ranks eleventh for the actives and twelfth for the inactives. From the size of the means of religion in both inactive groups,

it is suspected that religion would be the last value in the list even if there were other values added to the test. It would seem that the groups tend to push it as far down as the test will permit. The actives quite definitely do not put it at the bottom, and the mean for religion in both active groups is noticeably smaller than its rank order, especially when compared to the same difference between means and rank orders for religion in the inactive groups.

TABLE 27
DIFFERENCES IN VALUES OF PEOPLE ACTIVE IN CHURCH
AND PEOPLE NOT ACTIVE IN CHURCH
(Age 17 Years)

Values	Group	Rank	Mean	P.E.	Difference	Critical Ratio	Sigma
Wealth.....	Active	10	7.86	.67			3.56
	Inactive	11	9.55	.40	1.69 ± .78	2.17	1.88
Society.....	Active	9	7.43	.62			3.31
	Inactive	10	9.27	.37	1.84 ± .72	2.56	1.72
Political Power.	Active	6	6.68	.64			3.42
	Inactive	8	6.45	.60	.23 ± .88	.26	2.80
Social Service..	Active	5	5.43	.60			3.20
	Inactive	1	3.45	.55	1.98 ± .81	2.44	2.58
Home Life.....	Active	2	4.07	.47			2.53
	Inactive	2	4.14	.50	.07 ± .69	.10	2.33
Comfort.....	Active	8	7.36	.62			3.33
	Inactive	5	5.55	.69	1.81 ± .93	1.95	3.24
Religion.....	Active	11	8.32	.56			3.00
	Inactive	12	10.45	.44	2.13 ± .71	3.00	2.07
Security.....	Active	7	7.21	.44			2.37
	Inactive	7	6.05	.58	1.16 ± .73	1.59	2.71
Personal Attraction.....	Active	3	4.93	.43			2.27
	Inactive	6	5.77	.66	.84 ± .79	1.06	3.10
Excitement.....	Active	12	9.43	.46			2.44
	Inactive	9	8.09	.74	1.34 ± .87	1.54	3.48
Friends.....	Active	1	3.96	.39			2.09
	Inactive	3	4.18	.39	.22 ± .55	.40	1.84
Intellectual Activity.....	Active	4	5.32	.63			3.37
	Inactive	4	5.14	.60	.18 ± .87	.21	2.79

Comfort is higher for the inactives, which is the opposite of the slight difference for the seventeen-year-olds. Po-

litical power tends to rank higher among the actives in the eighteen-year-old group. No other differences are significant.

TABLE 28
DIFFERENCES IN VALUES OF PEOPLE ACTIVE IN CHURCH
AND PEOPLE NOT ACTIVE IN CHURCH
(Age 18 Years)

Values	Group	Rank	Mean	P.E.	Dif- ference	Criti- cal Ratio	Sigma
Wealth.....	Active	9.5	8.00	.54			2.77
	Inactive	8	7.38	.75	.62 ± .92	.67	3.85
Society.....	Active	8	7.46	.64			3.30
	Inactive	9	7.42	.52	.04 ± .83	.05	2.66
Political Power.	Active	5	6.15	.55			2.84
	Inactive	11	8.23	.62	2.08 ± .83	2.51	3.17
Social Service..	Active	6	6.23	.72			3.69
	Inactive	6	6.00	.64	.23 ± .96	.24	3.31
Home Life.....	Active	1	3.19	.60			3.10
	Inactive	1	3.16	.44	.03 ± .74	.04	2.25
Comfort.....	Active	9.5	8.00	.62			3.19
	Inactive	4	5.50	.55	2.50 ± .83	3.01	2.80
Religion.....	Active	11	8.62	.68			3.49
	Inactive	12	11.15	.25	2.53 ± .72	3.51	1.20
Security.....	Active	7	6.31	.59			3.05
	Inactive	7	6.16	.45	.15 ± .74	.20	2.30
Personal Attrac- tiveness.....	Active	3	5.27	.39			2.01
	Inactive	3	5.04	.46	.23 ± .60	.38	2.34
Excitement.....	Active	12	9.42	.51			2.63
	Inactive	10	8.00	.64	1.42 ± .82	1.73	3.30
Friends.....	Active	2	3.88	.34			1.76
	Inactive	2	4.12	.33	.24 ± .47	.50	1.69
Intellectual Activity.....	Active	4	5.46	.63			3.23
	Inactive	5	5.92	.64	.46 ± .90	.51	3.29

Assuming the attendance at the University of Chicago is an elective matter just as attendance at a religious college is elective, Groups A and J may be compared to see which values tend to draw students to one or the other place. Only the seventeen-year-old students were used from Group A. The data are in Table 29. Religion and social service are significantly higher in Group J than Group A, and home life, intellectual activity,

and security tend somewhat in the same direction. Excitement, friends, wealth, society, and political power are significantly higher in Group A than Group J. Comfort, and personal attractiveness tend to move in the same direction, but not by significant amounts. All of these differences are in harmony with what is known of the general cultural and social pattern of both schools.

TABLE 29
DIFFERENCES IN VALUES OF GROUPS J AND A

Values	Group	Rank	Mean	P.E.	Difference	Critical Ratio	Sigma
Wealth.....	J	11	10.37	.25			1.56
	A	11	8.60	.46	$1.77 \pm .52$	3.40	3.37
Society.....	J	10	9.87	.20			1.25
	A	9	8.24	.40	$1.63 \pm .45$	3.62	2.88
Political Power.....	J	9	9.00	.28			1.78
	A	7	6.58	.44	$2.42 \pm .52$	4.65	3.16
Social Service.....	J	1	2.58	.21			1.29
	A	3	4.56	.43	$1.98 \pm .43$	4.13	3.10
Home Life...	J	3	3.37	.35			2.18
	A	2	4.10	.34	$.73 \pm .49$	1.45	2.44
Comfort.....	J	8	7.97	.29			1.82
	A	6	6.56	.47	$1.41 \pm .55$	2.56	3.41
Religion....	J	2	2.68	.40			2.51
	A	12	9.26	.39	$9.26 \pm .39$	11.75	2.84
Security....	J	6	5.79	.34			2.12
	A	8	6.70	.36	$.91 \pm .50$	1.82	2.59
Personal Attractiveness.....	J	7	5.92	.26			1.64
	A	5	5.30	.37	$.62 \pm .45$	1.38	2.70
Excitement..	J	12	11.05	.27			1.70
	A	10	8.84	.42	$2.21 \pm .50$	4.42	3.02
Friends.....	J	5	5.16	.24			1.54
	A	1	4.06	.27	$1.10 \pm .36$	3.05	1.99
Intellectual Activity..	J	4	4.16	.33			2.06
	A	1	5.24	.43	$1.08 \pm .54$	2.00	3.13

Group I, while predominantly anti-religious, had four members who professed to be active in a religious organization. The data for a comparison of these four to the rest of the group

are in Table 30. The only significant difference for the comparison is on comfort, which is higher in the inactive group than the active. This agrees with the significant difference for the same value in Table 28. Religion is considerably higher for the four actives than for the inactives, but the critical ratio lacks a little of the required size for complete statistical significance. There is a tendency for excitement to be lower in the active than the inactive group.

TABLE 30
DIFFERENCES IN VALUES OF FOUR CHURCH ATTENDERS
AND THIRTEEN NON-ATTENDERS IN GROUP I

Values	Group	Rank	Mean	P.E.	Difference	Critical Ratio	Sigma
Wealth.....	Active	9	8.63	1.08			2.77
	Inactive	9	8.38	.24	.25 ± 1.11	.23	1.21
Society.....	Active	10	9.00	.78			2.00
	Inactive	11	9.77	.29	.77 ± .84	.92	1.48
Political Power	Active	4	5.00	1.07			2.74
	Inactive	5	5.38	.64	.38 ± 1.24	.31	3.29
Social Service.	Active	2	3.75	1.41			3.63
	Inactive	1	2.77	.43	.98 ± 1.47	.67	2.19
Home Life.....	Active	7	5.75	1.54			3.96
	Inactive	8	7.92	.85	2.17 ± 1.76	1.23	4.38
Comfort.....	Active	11	9.13	.44			1.14
	Inactive	7	5.92	.53	3.21 ± .69	4.65	2.70
Religion.....	Active	8	7.88	1.16			2.97
	Inactive	12	11.08	.29	3.20 ± 1.20	2.67	1.49
Security.....	Active	3	4.88	1.00			2.56
	Inactive	3	4.15	.42	.73 ± 1.08	.68	2.14
Personal Attractiveness.	Active	5	5.13	.76			1.95
	Inactive	6	5.85	.54	.72 ± .93	.77	2.75
Excitement.....	Active	12	10.50	.58			1.50
	Inactive	10	8.58	.65	1.92 ± .87	2.21	3.35
Friends.....	Active	1	3.13	.71			1.82
	Inactive	4	4.23	.26	1.10 ± .82	1.34	1.35
Intellectual Activity.....	Active	6	5.25	.89			2.28
	Inactive	2	3.96	.56	1.29 ± 1.05	1.23	2.89

The two Jewish groups represent opposite extremes of a cultural pattern. Membership in the two groups is purely elec-

tive, and depends on which values the electing individual seeks. A comparison of the two groups reveals some important differences in the value patterns of the members. The data are in Table 31.

TABLE 31
DIFFERENCES IN VALUES OF GROUPS J AND I

Values	Group	Rank	Mean	P.E.	Difference	Critical Ratio	Sigma
Wealth.....	J	11	10.37	.25			1.56
	I	9	8.44	.29	1.93 ± .38	5.08	1.71
Society.....	J	10	9.87	.20			1.25
	I	11	9.59	.28	.28 ± .34	.82	1.65
Political Power.....	J	9	9.00	.28			1.78
	I	5	5.29	.54	3.71 ± .61	6.08	3.18
Social Service.....	J	1	2.58	.21			1.29
	I	1	3.00	.44	.42 ± .49	.86	2.63
Home Life...	J	3	3.37	.35			2.18
	I	8	7.41	.74	4.04 ± .82	4.93	4.38
Comfort.....	J	8	7.97	.29			1.82
	I	7	6.68	.47	1.29 ± .55	2.35	2.78
Religion....	J	2	2.68	.40			2.51
	I	12	10.32	.40	7.64 ± .57	11.65	2.37
Security....	J	6	5.79	.34			2.12
	I	4	4.32	.38	1.47 ± .51	2.88	2.27
Personal Attractiveness.....	J	7	5.92	.26			1.64
	I	6	5.68	.44	.24 ± .51	.37	2.60
Excitement..	J	12	11.05	.27			1.70
	I	10	9.03	.53	2.02 ± .59	3.42	3.13
Friends.....	J	5	5.16	.25			1.54
	I	2	3.97	.26	1.19 ± .36	3.31	1.55
Intellectual Activity..	J	4	4.16	.33			2.06
	I	3	4.27	.47	.11 ± .57	.19	2.81

Wealth, political power, excitement, and friends are significantly higher in Group I than in Group J, while home life and religion are much higher in J than in I. There is a strong tendency for comfort and security to be higher in I than in J, but the differences are not statistically significant. There are no differences in society, social service, personal attractiveness,

and intellectual activity. All of the differences are in harmony with the important objectives around which each group is organized.

Value Differences Related to Social Mobility

Twenty of the students interviewed or known personally by the investigator were placed in two groups whose basic difference was the presence or absence of social mobility as defined and discussed by W. Lloyd Warner and Paul S. Lunt in their forthcoming study of social status.¹ The twenty were all of those whom the writer could judge for mobility or non-mobility, and by chance happened to yield two groups of ten each. The individuals were said to be socially mobile if they exhibited two or more of the following tendencies: (1) They take an active part in fraternal or similar organizations; (2) they seem to be after a job which would give them some sort of fame or publicity, or produce some form of public recognition; (3) they are active in promoting various activities which involve some recognition for themselves, or some form of fame or prestige; and (4) they seem to be aiming at a status in life which is noticeably higher than the one occupied by their parents. Non-mobility was defined as the absence of these tendencies. These criteria are admittedly rather loose, and are in no way an adequate representation of the technique used by Warner and Lunt. Furthermore, the groups are small, only ten members each, but the differences in the value patterns follow remarkably the expected directions, and are most outstanding for the values which tend to symbolize social status. The data are in Table 32.

The mobile group puts society and political power significantly higher than the other group, and puts comfort and security significantly lower than the other group. The mobile group also tends to put wealth and personal attractiveness higher, and social service, home life, and religion lower than the non-mobile group, but the differences are not definitely significant. The other two values and the test scores move in directions which are harmonious with the expected differences between mobile and non-mobile people, but by insignificant amounts.

The values which are most significant in the differences

¹W. Lloyd Warner and Paul S. Lunt, The Social Life of a Modern Community, Yankee City series, Vol. I. Now in press, at New Haven: Yale University Press.

TABLE 32

DIFFERENCES IN THE VALUES OF TEN MOBILE UPWARD
AND TEN NON-MOBILE PEOPLE

Values	Group	Rank	Mean	P.E.	Difference	Criti- cal Ratio	Sigma
Wealth.....	Mobile	5	5.90	.81			3.60
	Non-mobile	9	8.60	.59	2.70 $\pm$ 1.02	2.65	2.61
Society.....	Mobile	6.5	6.00	.64			2.86
	Non-mobile	11	9.05	.45	3.05 $\pm$.78	3.91	1.99
Political Power.....	Mobile	2	3.80	.47			2.09
	Non-mobile	10	8.85	.56	5.05 $\pm$.73	6.92	2.51
Social Ser- vice.....	Mobile	8	6.50	.81			3.61
	Non-mobile	3	4.10	.59	2.40 $\pm$ 1.02	2.35	2.62
Home Life.....	Mobile	3	5.05	.80			3.57
	Non-mobile	1	3.10	.47	1.95 $\pm$.93	2.10	2.11
Comfort.....	Mobile	11	8.95	.61			2.71
	Non-mobile	6	5.55	.60	3.40 $\pm$.86	3.95	2.67
Religion.....	Mobile	12	10.35	.51			2.26
	Non-mobile	8	8.20	.80	2.15 $\pm$.95	2.26	3.57
Security.....	Mobile	9	7.85	.51			2.25
	Non-mobile	5	5.40	.47	2.45 $\pm$.69	3.55	2.10
Personal At- tractive- ness.....	Mobile	6.5	6.00	.53			2.36
	Non-mobile	7	7.40	.43	1.40 $\pm$.68	2.06	1.91
Excitement....	Mobile	10	8.80	.65			2.89
	Non-mobile	12	10.10	.55	1.30 $\pm$.85	1.53	2.43
Friends.....	Mobile	4	5.55	.60			2.65
	Non-mobile	4	4.12	.41	1.43 $\pm$.73	1.96	1.82
Intellectual Activity....	Mobile	1	3.25	.36			1.60
	Non-mobile	2	3.50	.69	.25 $\pm$.78	.32	3.08
Rho.....	Mobile	....	76.20	4.24			18.85
	Non-mobile	....	72.30	3.93	3.90 $\pm$ 5.78	.67	17.46
A.....	Mobile	....	2.20	.24			1.08
	Non-mobile	....	1.60	.15	.60 $\pm$.28	2.14	.66
B.....	Mobile	....	1.00	.49			2.19
	Non-mobile	....	.80	.24	.20 $\pm$.55	.36	1.08
C.....	Mobile	....	7.50	.77			3.44
	Non-mobile	....	10.70	1.28	3.20 $\pm$ 1.49	2.15	5.69
D.....	Mobile	....	3.40	.90			4.01
	Non-mobile	....	5.90	1.32	2.50 $\pm$ 1.60	1.56	5.87

between the groups are not always those which are at the extremes of the lists, and the differences are not apparent without statistical comparison, so that without knowing the people or having independent information about them it would be difficult to make such groupings by the value lists alone. In addition, the precaution was taken of making the grouping of the individuals before the value patterns were examined at all. The very high degree of agreement between the test results and the sociological theory speaks well for the validity of the test and for the hypothesis of value-directed behavior in view of the fact that it is necessary for the test to be sensitive to value differences between people, and for values to be very closely associated with the direction of behavior before such close agreement may be expected in test results. More rigidly controlled studies of this sort would be very much worth while.

Summary

Five groups were described, whose membership is elective with the individual and whose programs are basically different from the groups discussed in Chapter V. In each case the value pattern was found to reflect rather precisely the dominant characteristics and objectives of the groups.

Value patterns of people who profess active membership in religious organizations were compared to those who disclaim such participation, in four groups or sub-groups. Religion was found to be higher among the people who engage in religious activity than among those who do not, and other related values were found to move in appropriate directions from group to group.

Ten people described as socially mobile were shown to have a higher evaluation of the symbols of social status than ten people not socially mobile.

CHAPTER VII

EVIDENCES OF TEST VALIDITY FROM INTERVIEW AND FROM ANALYSIS OF SCORES

Interviews with students provide excellent validation for the value patterns described by the test. Some individual cases will be discussed here. In a few cases discussion of the test with a group of people who have taken it provides some evidence of the validity of the test. Some of the internal checks in the test may also be examined for their implications for test validity. These three types of evidence will be discussed in the order named.

Verification of Value Patterns by Interview

Thirty-five students on the University of Chicago campus were interviewed individually after their tests had been scored. Several other adults were similarly interviewed. The students in Group E are so well known by the writer that an interview was not necessary to judge the correctness of the response. Cases reported in this chapter are taken from the groups mentioned here, because they present a great deal of variety in value patterns and test scores and therefore apparently represent most of the types of responses that may be expected to a value test.

In each interview an attempt was made to create a friendly informal atmosphere. Neither approval nor disapproval was offered for the responses shown on a test. In the first few interviews the writer made no attempt to interpret the test to the students, but attempted to find out through conversation if the value patterns were correct and what was responsible for the placing of one part of a value higher than the other part wherever that occurred. On the basis of what was learned by this procedure it was possible to inform the students interviewed later exactly what they had liked in the one situation and had not liked in the other situation. In all subsequent interviews the procedure was as follows: The objective of the test was pointed out to each

student, and the technique of the test briefly explained. The student and the interviewer examined the value pattern, which was interpreted to the student by the interviewer. The student was then asked to criticize the results of the test in any way he desired with special attention to inaccuracies in the value pattern. Before the comment analysis was discussed, the student was asked to identify the neutral point in the value pattern, and this was marked on the score sheet. Where values were split, the writer described to the student the shade of the value which was high and the shade which was low, and asked for a candid criticism of this split. Most of the students responded with emphatic affirmations of the descriptions, indicating some surprise that it was possible for the writer to tell them what they had had in mind when those choices were made. Finally, by referring to some specific choice made in the test by the individual, or to some entry on the personal questionnaire, a discussion was started of the student's plans and hopes for the future, and his reactions toward the present school situation. In this type of conversation it was possible to check on the validity of comments and criticisms made by the student earlier in the interview, and also to obtain some fairly objective indications of what current problems the student was facing, what possible choices of action he could see, and which of them he seemed to prefer. This provided an excellent check on the value pattern.

The cases reported here are those on which the interview notes are most complete and contain the most information about the person. So far as the writer can determine they offer neither more nor less validation for the test than any other cases which might have been reported in their places. Each case will be referred to by a number which will show the group in which the individual was tested and the number of his test.

Case Number A43

Student A43 is a Freshman, eighteen years old. He was educated in public schools, and raised in a city of between 25,000 and 100,000 population. He is vehemently opposed to any form of religious activity, but belongs to an old line social fraternity. His father is a real estate agent, with an income of over two thousand dollars annually. One parent had two years of college training, and the other graduated from high school.

The student intends to study law. The value pattern set up by the test is in Table 33.

TABLE 33
VALUE PATTERN OF CASE NUMBER A43

Values	Comments ^a	
	Positive	Negative
Intellectual Activity.....	4	
Wealth.....	5	
Excitement Incidental to a Job...	4	
Home Life.....	1	
Comfort.....	9	
Social Ease and Poise for Its Own Sake.....	1	b
Political Power.....	1	1
Society.....		4
Friends.....		1
Excitement for Its Own Sake.....		0
Security.....	1	1
Social Service.....		1
Personal Development through Constructive Activity.....		1
Religion.....		2

^aFor explanation of comments see supra, pp. 57-58, 65-66.

^bThe neutral point identified by the student is shown by the oval among the comments.

Number A43 commented on certain values as follows. Personal development through constructive activity is useful as a tool, but does not interest him. Social ease and poise are valuable principally for their own sake. Excitement makes a job more interesting, but excitement as an end in itself is not worth seeking.

In the interview the writer received the impression that this student was quite alert mentally, but that he was extremely dogmatic and very sure of himself. The dogmatic tendency is supported by the test scores: A = 2, B = 0, C = 12, and D = 4. The student apparently sees no need to re-evaluate a problem when he has once decided what to do, so he failed to catch the changes indicated by the C score. He also has a calculating outlook with no sympathy for sentiment. This is evidenced by his low rating of religious activity, and his emphatic assertion that he had no use for religion himself, and did not want anyone to bother him

with it. Others could have religion, but they should keep it out of his way. In a discussion of the value pattern he said that the values were placed "absolutely right." "The only thing I am interested in is getting a lot of money. That is the only thing that counts."

One of the comments recorded in the test was written as a favorable comment on the social service choice in Problem C: "Intellectually stimulating. I may have a book written about me." The unfavorable comment for the same choice was "low income, hard work."

Case Number A57

Number A57 is a twenty-one-year-old Freshman. She was raised in a large city, and educated in public schools. Her father is a salesman; her mother keeps the house. The family income averages between fifteen hundred and three thousand dollars annually. One parent finished college; one finished high school. The girl is a member of a social group and is an active member of the Presbyterian Church and the Westminster Student Group. The value pattern is shown in Table 34.

TABLE 34
VALUE PATTERN OF CASE NUMBER A57

Values	Comments	
	Positive	Negative
Intellectual Activity of the Theoretical Type, for Entertainment.....	7	
Friends.....	14	
Personal Attractiveness.....	9	
Political Power.....	6	
Wealth.....	5	
Intellectual Activity for Practical Purposes.....	0	
Excitement Incidental to Job....	1	
Social Service.....	1	
Security.....	1	
Society.....	0	
Comfortable House and Good Food..	1	
Excitement as End in Itself.....		1
Home Life.....		1
Religion.....		2
Relaxation and Recreation.....		0

Comments written in the test indicate that "dullness" is extremely distasteful and "cliques" are not liked. There were five comments indicating that it is important to be ambitious and to be doing something that counts. For example, of the home life in Problem A she said, "Too much stagnancy by far. Lack of ambition in populace. No color to life!" The security choice had this comment, "Not enough opportunity for real advancement and achievement." The central theme of this girl's thinking is revealed by the content of these comments, which are taken from several parts of the test: "Great political opportunity--a center of public life. Association with well-known political leaders." "Not quite enough social life. Not much opportunity for political advancement." "Fine atmosphere. Opportunity for mental improvement. Creation of friends successful in many fields." "Too lacking in future and personal development and culture. No intellectual life." "Intellectually stimulating." "Opportunity to meet interesting people. Not monotonous. No stagnancy." "Not enough intellectual activity. Not quite enough self-development or financial development."

Before A57 was interviewed, the writer interviewed a close friend of hers who had also taken the test. With A57's permission, the friend inquired about A57's value pattern. She declared the value pattern was "perfect." Number A57 wants to specialize in political science and journalism while in college, and then plans to seek a position as a Washington correspondent for a newspaper or some other publication. The friend offered the very enlightening suggestion that the principal objective of A57 was to pursue a course which would establish her prestige beyond question, and that any other activities in life were incidental to that main purpose. In the light of that suggestion, it is interesting to note that she finds her religious activity in a student group, and when she speaks of friends they are not just friends, but are "well-known political leaders," or "industrious people," or "successful in many fields."

There is some indication that A57 has become so set on her goal, that she pays little attention to further evaluation of experiences which she believes do not have an important bearing on the achievement of that goal. Her scores are, A = 3, B = 0, C = 6, and D = 0. All of the changes shown in the C score were in the negative values and none of those changes were recognized

and accounted for in Part IV choices. In none of the three problems were her positive values involved in a change of choice. The D score suggests that she has at some time made an evaluation of the things life offers, for she shows no contradiction in choices in the paired comparisons. The mean D score for her group is 4.89, and the mean A score is 2.19. She apparently deliberates more on her choices than the group, for she spent seventy-five minutes on the test, whereas the group mean is 58.02 ± 1.38 . This case and the one which follows make an interesting comparison.

Case Number A32

Number A32 is an eighteen-year-old Freshman. She was raised in a large city and educated in public schools. Her father is an artist with an income between one and two thousand dollars annually. Her mother keeps the home. The father's schooling ended with the fourth grade, and the mother's with the eighth grade. Number A32 is of more than average attractiveness, and apparently much more than average in mental capacity. She is extremely well poised and sophisticated in a likable manner. The value pattern is shown in Table 35.

TABLE 35
VALUE PATTERN OF CASE NUMBER A32

Values	Comments	
	Positive	Negative
Leadership in Informal Groups....	1	
Social Service through Research..	3	
Intellectual Activity.....	3	
Excitement Incidental to a Job...	3	
Friends.....	1	
Personal Attractiveness.....	2	
Excitement as an End Itself.....	0	
Home Life.....	2	
Wealth.....		2
Society.....		2
Comfort.....		2
Religion.....		1
Social Service as a Direct Activity.....		0
Security.....		2
Civic Political Power.....		1

Rho in this case is .20, which is very low. This is explained by the fact that two of the items were split apart by almost the entire length of the value pattern. The others were very consistently aligned.

Number A32 felt that two of the values in the pattern were out of place: Excitement as an end in itself was said to belong at the bottom of the list, and religion was said to belong between home life and money. Excitement may be somewhat misplaced, but it is probable that religion is of less value to the student for itself than it is for the opportunity it offers to make friends and be a leader in informal groups. This student is active in the Inter-Church Council, and in the Chapel Union, but is not a member of a social group as yet.

Number A32 reported in the interview that she had approached Problem A with the idea that she would settle down as a housewife, but that since Problem C dealt with selecting a vocation, she had approached that problem with the idea that she would have a career and not be a housewife. It is difficult to see how this could have had an effect on the value pattern, however, since nine of the twelve values, including home life, held a constant rank order throughout the test, and the two values which split may be explained on other grounds, e.g., civic political power was put at the bottom of the list, but the other aspect of political power, leadership in informal groups of her own age, attracted the student very strongly; and social service was split because the choice in Problem A was said to smack too much of publicity, while the chance to do social good through constructive research work was extremely interesting and intellectually challenging. This interesting circumstance argues strongly that values are the directive factors in all behavior, and that the testing technique presented in this study is a valid means of obtaining value patterns of individuals.

This student faces a problem in choosing her future courses in school because she is torn between two desires. Her past teachers have all been impressed with the quality of her work and several have urged her to specialize in their particular fields. She is attracted by two of those fields, chemical research, and writing. She feels that either would be acceptable to her, but her friends all urge her not to go into laboratory research and "bury herself." She is also uncertain whether to go into a

career or marry and become a housewife. Obviously the final goal is still somewhat uncertain for her, but certain interesting possibilities are beginning to loom up. Some of her interesting comments are quoted: "Would like to make enough money here to endow a scholarship fund and build churches and further scientific research." "Not particularly interested in making money fast. I could do it if I wanted to, and hate to be beaten by my neighbors without my trying." "Prominence in society breeds contempt." "Don't like politics." "Don't like taking part in most church social functions." "Like being in control, if I can handle the job." "Like to do exciting things, if they're not 'immoral.'" "Like associating with intelligent people." "Think this [social service] is the best aim in life."

The A, B, C, and D scores for this student are average for the group. Number A32 and Number A57 are very unlike in several ways, but have some values in common. Both rate positions of leadership highly, but A57 likes leadership for the prestige it brings, and A32 appears to enjoy it for its intellectual challenge. Both rate intellectual activity highly, but A57 seems to value it as a tool to reach prestige through contacts with other intellectuals, while A32 enjoys it for its own sake and would enjoy research work even in partial isolation.

It seems that rather great differences between two individuals can hinge on one or two values which become major forces in behavior, even when two individuals are greatly alike in most other values.

Eleven other cases are discussed by the writer in the complete dissertation, but the three foregoing cases are typical and representative of the rest. The discussions of group interviews and analysis of internal consistency of test scores are omitted from this brief report but appear in Chapter VII of the dissertation.

CHAPTER VIII

FINDINGS AND CONCLUSIONS

Foundation of Value Testing

Unlike some research problems which move into the unknown from fairly firm under-structures of established facts, the problem of studying individual values has little such groundwork from which to take its departure. Personality theories make extensive use of relatively unverified hypotheses, and of so-called assumptions which at times are little more than hypotheses themselves. To launch upon an extensive examination of such assumptions would appear to be a disheartening if not unpromising attempt to find facts where few if any facts exist. Accordingly some few individuals have set up specific problems in the study of values and have attempted to create a body of data from which facts of some kind might eventually emerge to help clarify the thinking of personality students and to make the distinctions between good and bad hypotheses and assumptions more apparent than they are at present. The present study was launched more with that hope than with any assurance that a clear-cut hypothesis about personality could be described and adequately dealt with.

The Findings

The test was administered to some 350 individuals and the results analyzed. The findings are as follows:

1. An analysis of the test content indicates that there are no known "specific determiners" in the test, and that choices made by individuals represent their own preferences rather than coercion by anything in the test.
2. So far as analysis in the preliminary stages of test construction could determine, the circumstances under which the tests were administered had no apparent effect on the test results.
3. When groups of people are selected for testing because all the members of any one group tend to have similar backgrounds, there is a striking similarity between the group value patterns and the values which common sense observation indicates are high or low in groups with such

backgrounds. It is impossible to reduce the degree of agreement between the test and common sense observation, to a numerical coefficient of unquestioned meaning, but the value patterns of the groups used in this study are in every case apparently correctly reflected in the test in so far as common sense observation can yield validation of an acceptable nature.

4. When groups with different backgrounds are compared as to value patterns, the differences between the groups appear in every case to follow the results of careful common sense observation of the groups.
5. When groups of individuals are tested who are voluntarily associated for some specific purpose such as highly specialized vocational training, the value patterns reveal in the highest positions those values which would normally be expected to lead individuals into such pursuits, and show in low positions those values which tend to operate antagonistically to such pursuits.
6. The use of sigma as an index of homogeneity reveals the fact that the average size of sigma for all the groups varies from 1.68 to 2.95. This means that in no group did the group members have a standard deviation from the mean position of each value of over 2.95 positions up and down the value scale, and that the standard deviation was as low as 1.68 positions up and down the scale in the most homogeneous group. It must be remembered that even in the group where the mean index of homogeneity was 2.95, there were many values for which sigma was less than that just as there were several for which sigma was more than that. In every group there must inevitably be some values on which the group is not at all homogeneous and others which are important values in the structuring of the particular group, so that low sigmas on all values would probably be contrary to normal expectations.
7. When individuals within a single group are separated on the basis of whether they are active members of a church or not, it is found in every case that those who attend church place a higher evaluation on religion in the test than those who do not attend church. This is as true in groups where religion is extremely low in the value pattern of the whole group as in groups where religion is higher in the value pattern. Virtually no other differences exist in such comparisons.
8. When members of Group F were divided into four sub-groups based on level of annual parental income, it was found that society, social service, and friendship tend to drop as values for the higher income groups, and political power and personal attractiveness tend to rise in the higher income levels.
9. When college freshmen, juniors, early graduates and advanced graduates are compared to each other, it is found that students in graduate work and especially at the advanced level in the field of education show higher inter-

ests in scholarly and humanitarian values than students at lower levels, and that the advanced graduates are a much more homogeneous group on almost all the values than any of the other three groups. Whether the groups used in this comparison are typical of all such college groups is not known.

10. When a comparison was made of groups from two schools which are essentially alike in most basic matters, virtually no differences occurred in the group value patterns or test scores.
11. When individuals are grouped according to the size of their home towns, it is found that wealth, society, and political power tend to rise with the size of the town, and social service, comfort, and religion tend to drop as the size of the town increases.
12. When men and women are compared within one group, it is found that the men place a significantly higher value on social service than women, and women place a significantly higher value on wealth and home life than men. No other differences were demonstrable in the groups compared. The groups used cannot be considered representative of all groups of men and women.
13. When ten socially mobile people (selected at random) were compared to ten non-mobile people, it was found that all of the seventeen variables in the test moved in the "right" direction to indicate that the mobile people place higher value on the symbols of social status than the non-mobiles, that the non-mobiles place a higher value on values not symbolic of status than the mobiles, and that the test scores which indicate alertness, insight, and consistency all favored the mobile group. Many of the differences were statistically significant, and many were not. No variable moved in a direction contrary to this description.
14. When interviews were held with thirty-five students after their tests had been scored, all except one of the students confirmed the results of the test as valid, and in informal conversations exhibited other unmistakable evidences that their corroboration of the test results was honest and dependable. The single exception was a student who was somewhat confused in his own thinking about such problems, and it was not possible to tell whether the test results in his case were valid or invalid. Other interviews with adults who took the test offered similar corroboration of the test results.
15. When the rho scores of all the members of each group are averaged, it is found that the group rho scores vary from .56 to .92, and that five of the groups (including four of the five selected for their elective activities, and one made up of people selected individually for their typicality in a certain cultural setting) averaged over .80. Therefore there was almost no shifting of rank position by any of the values in the tests of these five

groups, and not very much shifting in the other nine groups.

16. When the A, B, C, and D scores of all the groups are considered, it is found that the A, C, and D scores tend to show consistent relationships, and that their variation in size is apparently concomitant with the amount of unifying and integrating experience of the groups. The B score seems to operate independently of the other three and to be influenced by individual but not group characteristics.

These findings cannot be said to agree or disagree with any of the studies of attitudes or values now in the literature. This is true for several reasons. (1) Values and attitudes are apparently not enough alike to permit comparisons. It is impossible to tell whether the findings of this study have any common ground with the findings of the numerous attempts to measure attitudes. (2) Studies of attitudes treat a single attitude and describe it by a score on a scale of affect. Such a score cannot be equated to a relative rank order of preference for several values. (3) The few studies of values now available are not always in agreement on the question of which group has the highest preference for a given value. Such disagreement is probably due to real differences in the groups tested, but until the cause of the differences is really known it is fruitless to attempt to generalize from small samples or to evaluate one value measurement by another when different groups and different techniques are used. The present study is apparently the first to attempt the ranking of a number of personal values by allowing the individual to react to a series of functional situations and interpreting his acts in terms of the results he would normally secure from his choices if the choices were carried into action.

An Interpretation

The findings reported in this chapter seem to have some important implications for personality study.

1. The general results of the study indicate that much useful information can be obtained about personality by launching directly into experimental work even though it is not possible to verify all assumptions before setting a problem for study.
2. There is strong indication in the test results discussed in Chapters V and VI, that the value patterns produced by this test are in very close harmony with the behavior of individuals in actual life situations, and that the tech-

nique used to construct this test may have succeeded in eliminating in large measure the discrepancy between paper and pencil test results and actual performance in life situations. Whether this is due to the type of reaction called for by the test, or to the idea that values are basically more influential than attitudes in shaping behavior, or to both factors is not entirely clear. It is suspected that both factors have contributed to that result.

3. Differences between individuals on value patterns appear to be very great. Theoretically there may be no limit to the number of values it would be possible to describe, or to the numerous shadings which various individuals may have developed for each one, not to mention the mathematical possibilities of combining those values into any number of patterns with relative rank orders of preference. The handling of individuals on the basis of so-called personality "types" may be questioned in the light of the data in this study, especially where it is shown that great variations in behavior seem to hinge on the positions which one important value occupies in the value patterns of two groups which are otherwise much alike.
4. If values are the determining factors in the goal-seeking activities of people and groups, then one of the most important tasks of the school must be to help the student develop the ability to generalize accurately from his experience, and read from it a correct interpretation of the relative value of all the ideas, conditions, activities, and other things that may be set up by him as values. The school must further help him develop the ability to evaluate his daily actions in the light of his major goals, so that he can continually subject his own values to intelligent examination for their internal consistency and for their harmony with the experience of the race.
5. If students really guide their choices so as to promote their positive values and avoid their negative values, then educational institutions should attempt to bring all vital values to the level of consciousness. The corollary to this effort would be to organize counseling programs so that students can be guided into activities which their values indicate will be satisfying to them. A promising hypothesis for studies of discontented individuals would be that the activities which make up the major part of their lives tend to be at variance with their individual value patterns.

Conclusions

The problem outlined for this study was the development of a generalized technique for the construction of a test by means of which a given list of values can be ranked in the order of the importance of those values for an individual without regard to the extent to which the individual is aware of those values.

The validation of the technique was to be based on the building of a specific test, which was to be administered, scored, and interpreted, after which the results were to be analyzed for their accuracy. Three of the evidences of validity were said to be (1) that the test would give a true rank order of values for each person; (2) that the rank order would remain relatively constant in all the behavior called for by the test; and (3) that the major trends of the person's behavior in daily life would be consistent with his values as shown in the test.

Each of the proposed steps was carried out. It is clear that the technique presented in Chapter III makes possible the construction of a value test which is sensitive to both gross and fine value differences between groups or individuals, and that the way is open to the eventual determination of the coefficients of reliability and validity for such tests through the construction of relatively equivalent forms.

By means of the peculiar form of the test, and the resulting rho scores, it is apparent that the values do not change their positions from problem to problem, but remain fixed to a very high degree. So far as evidence is available the goals toward which the tested individuals are working all seem to be in close harmony with the value patterns revealed by the tests. However, three facts must not be forgotten in accepting the results of any test of the nature of the present one: (1) The test puts an artificial control on the values that operate in the test situations, and therefore tends to cut out all values not specifically included, whereas in an actual life situation many other values than those being studied are likely to be functioning. (2) The values in the test are presented to the student in verbal form and must be interpreted subjectively by the student before he can react to them; also they are presumably subject to a rationalized consideration to a greater extent than are values in real life situations. (3) It is possible that a value in the test is more easily identifiable as a certain specific value by the individual than in a life situation where the individual may be receiving great satisfaction from a specific condition without knowing exactly what value the condition is promoting. These three facts seem to imply that the unity of a value pattern as shown in the correlation of the individual's choices in Problems A, B, and C may be to some extent a product of the ease of handling

action symbolically in contrast to a life situation where the full interplay of the values themselves may coerce action in a manner not characteristic of a paper and pencil test situation. Thus it may be possible to secure a much greater appearance of (or much more obvious) coherence in behavior in the test than in a real situation. This does not necessarily mean that the coherence in a real situation is actually less than in a test situation, but that the test makes consistency more obvious. There is little if any evidence available on this point at present.

The very existence of values and their importance as directive factors in behavior is hypothetical and therefore the possibility of establishing validity for the testing technique depended on the demonstration of two ideas rather than one: (1) Unless values do remain highly constant in behavior the test cannot produce such a result, and (2) unless the test is valid it will not show a higher correlation of the two rank orders of values in their double appearances in the three problems than any sort of chance selection might produce. This, in a sense, offers a double argument for the validity of the testing technique and for the idea that values are directive factors in behavior.

The question of whether value constancy is a matter of degree or of all-or-none is still unsettled. The present test was deliberately worded to allow different shades of meaning of closely related values to cause one item to be rated higher than the other if any individual desired to do so. This was done to give the test a high degree of sensitivity to fine personal differences. Such sensitivity is demonstrated in the cases of many of the people tested. To get the answer to the question of the degree of constancy, however, another form should be constructed in which all of the difference in the shades of meaning of the two descriptions of one value are eliminated. Presumably any splitting of values in such a test would imply less than absolute constancy, but this would have to be determined by careful analysis of the test and its results. An alternative plan would be to administer (after a lapse of some time) the paired comparison parts of the present form to people previously tested. If the value pattern tended to remain constant for those individuals who made discriminations between shades of meaning of any of the twelve values in the test, that fact would constitute good evidence for the constancy of values.

BIBLIOGRAPHY

- Allport, Floyd H. "Teleonomic Description in the Study of Personality," Character and Personality, V (1937), 202-214.
- Allport, Gordon W. "Attitudes," A Handbook of Social Psychology. Edited by Carl Murchison. Worcester: Clark University Press, 1935. Pp. 798-844.
- _____. Personality; a Psychological Interpretation. New York: Henry Holt & Co., 1937. Pp. xiv + 588.
- Allport, Gordon W., and Vernon, P. E. A Study of Values (test) Boston: Houghton Mifflin Co., 1931.
- Bernard, L. L. "Social Attitudes," Encyclopedia of the Social Sciences. New York: Macmillan Co., 1930. Vol. II.
- Cantril, Hadley. General and Specific Attitudes. Psychological Monographs, Vol. XLII, No. 192 (1932). Pp. 109.
- Cantril, H., and Allport, G. W. "Recent Applications of the Study of Values," Journal of Abnormal and Social Psychology, XXVIII (1933), 259-273.
- Cattell, Raymond B. "Sentiment or Attitude? The Core of a Terminology Problem in Personality Research," Character and Personality, IX (September, 1940), 6-17.
- Cowley, W. H. "The Educated-Man Concept in the Twentieth Century," School and Society, LII (October 19, 1940), 345-350.
- Ferguson, L. W. "Primary Social Attitudes," Journal of Psychology, VIII (1939), 217-223.
- Frank, L. K. "Projective Methods for the Study of Personality," Journal of Psychology, VIII (October, 1939), 409-413.
- Glaser, Edward M., and Maller, Julius B. "The Measurement of Interest Values," Character and Personality, IX (September, 1940), 67-81.
- Hawkes, Herbert E., Lindquist, E. F., and Mann, C. R. The Construction and Use of Achievement Examinations. American Council on Education. Boston: Houghton Mifflin Co., 1936. Pp. x + 497.
- Jacobs, George W. "Investigating the Student's System of Values," California Journal of Secondary Education, XIV (October, 1939), 339-341.
- Katz, D., and Allport, F. H. Students' Attitudes. Syracuse:

Craftsman Press, 1931. Pp. 408.

Kudor, G. Frederic. Preference Record. Chicago: Science Research Association, 1700 South Prairie Avenue, 1939.

Kunkel, Fritz. Character Growth Education. Translated by Barbara Keppel-Compton and Basil Druitt. Philadelphia: J. B. Lippincott Co., 1938. Pp. xii + 348.

Lurie, Walter A. "A Study of Spranger's Value Types by the Method of Factor Analysis," Journal of Social Psychology, VIII (1937), 17-37.

Murray, Henry A., et al. Explorations in Personality. New York: Oxford University Press, 1938. Pp. xii + 761.

Nelson, Erland. "Attitudes: I. Their Nature and Development," Journal of General Psychology, XXI (1939), 367-399.

_____. "Student Motives for Attending Lutheran Colleges," National Lutheran Education Conference Proceedings, 1933
Atlantic City: National Lutheran Educational Conference, 1933.

Parks, R. E. "Human Nature, Attitudes, and the Mores," Social Attitudes. Edited by Kimball Young. New York: Henry Holt & Co., 1931. Pp. 17-44.

Prescott, D. A. Emotion and the Educative Process. American Council on Education, 1938.

Raths, Louis. "Approaches to the Measurement of Values," Educational Research Bulletin, XIX (May 8, 1940), 275-282.

Reinhardt, James Melvin. Social Psychology. Chicago: J. B. Lippincott Co., 1938. Pp. ix + 467.

Reinhardt, James Melvin, and Boardman, G. R. "Insecurity and Personality," Social Forces, XIV (December, 1935), No. 2.

Richardson, H. M. "Community of Values as a Factor in Friendships of College and Adult Women," Journal of Social Psychology, XI (1940), 303-312.

Schaeffer, B. R. "The Validity and Utility of the Allport-Vernon Study of Values Test," Journal of Abnormal and Social Psychology, XXX (1936), 419-422.

Sherman, Mandel. The Development of Attitudes. New York: The Payne Fund, 1933. Pp. xi + 54.

Spencer, Douglas. Fulcrum of Conflict; a New Approach to Personality Measurement. Yonkers-on-Hudson: World Book Co., 1939. Pp. xii + 306.

Thurstone, L. L. "A Multiple Factor Study of Vocational Interests," Personnel Journal, X (1931), 198-205.

Tolman, E. C. Purposive Behavior in Animals and Men. New York: The Century Co., 1932. Pp. xiv + 463.

- Tyler, Ralph W. Constructing Achievement Tests. Columbus: Ohio State University, 1934. Pp. vi + 110.
- Van Dusen, A. C., Wimberly, S., and Mosier, C. I. "Standardization of a Values Inventory," Journal of Educational Psychology, XXX (January, 1939), 53-62.
- Vernon, P. E., and Allport, G. W. "A Test for Personal Values," Journal of Abnormal and Social Psychology, XXVI (1931), 230-246.
- Wickert, F. "A Test for Personal Goal-Values," Journal of Social Psychology, XI (1940), 259-274.
- Woodworth, R. S. Psychology. New York: Henry Holt and Co., 1934. Pp. xiv + 546.

